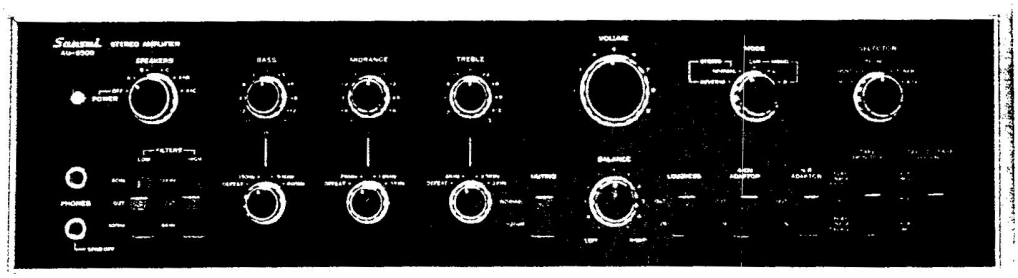
OPERATING INSTRUCTIONS & SERVICE MANUAL

STEREO AMPLIFIER

SANSUI AU-9500



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Sansui

SANSUI ELECTRIC CO., LTD.

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We are grateful for your choice of the AU-9500 Integrated Amplifier.
For over a quarter of a century, Sansui has been building hi-fi audio equipment, and nothing else. Our mission is very old and at once ever new to us: to bring the reproduced sound closer and closer to the original.
The AU-9500 now in your hands is one answer from us to this never-ending quest. It is a product of the cream of highly advanced modern audio-electronics knowhow, coupled with our long experience. As such, we present it to you with our full confidence.
The AU-9500 incorporates an all-stage direct-coupled pure complementary power amplifier that delivers a continuous power output of 85 watts per channel (each channel driven) into 8 ohms, with the total harmonic distortion of less than 0.1% over the entire audio spectrum. It connects three pairs of speaker systems, two turntables and two tape decks, while offering such sophisticated refinements as triple tone controls with adjustable turn-over/roll-off frequencies, inputs for a 4-channel adaptor and a noise reduction adaptor, preamplifier outputs and power amplifier inputs, tape-to-tape reprint facilities, and an audio muting switch.
This manual has been prepared to guide you in operating and caring for the amplifier correctly, so that you will obtain the most out of its built-in high performance and exceptional versatility.
May we suggest that you read it once carefully?

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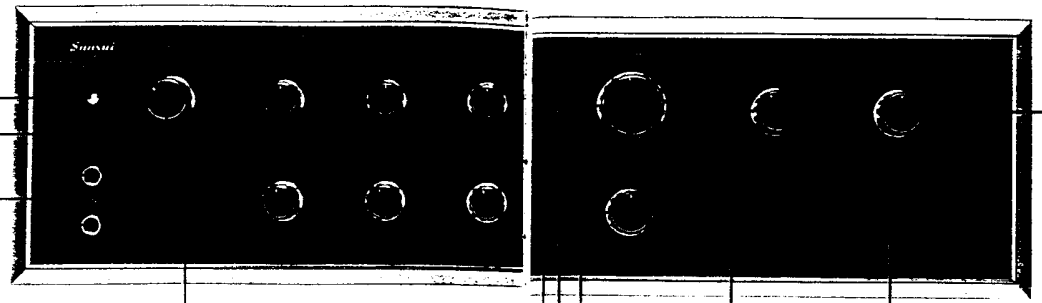
SWITCHES AND CONTROLS



Power Indicator
Lights when you turn on the Power/Speakers Switch, and remains lit until you turn off the switch.

Power / Speakers Switch
Controls both the power supply and selection of speaker systems.
POWER OFF: Cuts off power supply for the amplifier.
A: Turns on power supply and energizes the speaker systems connected to SYSTEM-A speaker terminals on the rear. Because of the built-in amplifier/speaker protection circuit, sound will come out with a delay of a few seconds.
B, C: Energizes speaker systems connected to SYSTEM-B or C speaker terminals.
A+B, A+C: Energizes both A and B pairs, or both A and C pairs of speaker systems.

Headphone Jacks
Accommodate two stereo headphone sets for monitoring or private listening. The upper jack lets you hear reproduced sound both from the speaker systems and headphone set. The lower one cuts off the sound form speaker systems for private listening with headphones only.

Filters
Low: Set this switch to 50Hz or 100Hz to eliminate low frequency noise such as the rumbling of your turntable motor. If no such noise is present, be sure to keep it off.
High: Set this switch to 12kHz or 6kHz to eliminate high frequency noise such as the surface noise from a worn record or as the fluorescent lamp noise mixed in radio broadcasts.

Volume Control
Turn clockwise to increase the sound volume.

Muting Switch
Reduces the sound volume by 20dB at once without the use of the Volume Control. Most convenient to lower the sound volume temporarily when the telephone rings, to avoid the noise of the pickup stylus descending on a record, etc.

Mode Switch
STEREO: The NORMAL position is normal. If you have connected the left and right speaker systems in reverse, set this switch to REVERSE to restore the normal stereo effect without physically changing the speaker connections.
MONO: Set to L+R, and the monophonic mixture of the left and right channel signals is heard from both speaker systems. Set to L(R), and only the left(right) channel signal is heard from both speaker systems.

Balance Control
Set the Mode Switch to MONO L+R once and adjust this control for equal sound volume from the left and right speaker systems, then return the switch to STEREO NORMAL. If there is a large difference in the sound volumes from the two speaker systems even with this control set near the center, it may be because the left and right output signal levels from the program source component (turntable, tuner, tape deck, etc.) are different. Check the component once.

Selector Control
Turn to an appropriate position to hear the desired program source.
MIC: To use microphones plugged into the MIC terminals.
PHONO-2, PHONO-1: To play records on a turntable connected to the PHONO 2 or 1 terminals on the rear. The input impedance of the PHONO-2 circuit is adjustable with the rear-panel Pickup Load Switch to match the load impedance of the cartridge in use.
TUNER: To hear a radio broadcast from a tuner connected to the TUNER terminals on the rear.
AUX: To reproduce whatever program source is connected to the AUX terminals on the rear. If necessary, adjust the input level with the AUX Level Adj. Control. (Connect a turntable with a crystal or ceramic cartridge, the audio outputs of a television, the playback outputs of a tape player, etc. to the AUX terminals.)

Tape Monitor Switch
Use this switch to reproduce a recorded tape or to monitor your recording.
Set the switch to PLAYBACK DECK-1 or DECK-2, depending on which circuit is being used to connect your tape deck (or if you have two tape decks connected, which one you are using). If you have connected tape deck(s) and/or other program source component(s) to the amplifier and wish to use them alternately, it is advisable to match their signal levels by adjusting the Level Adj. Controls on the rear panel, unless the tape deck(s) itself has an output level control.
Monitoring of recording is possible only on a tape deck having separate record and play heads.
If you wish to use three tape decks, the third tape deck may be connected to the 4-CH ADAPTOR terminals.

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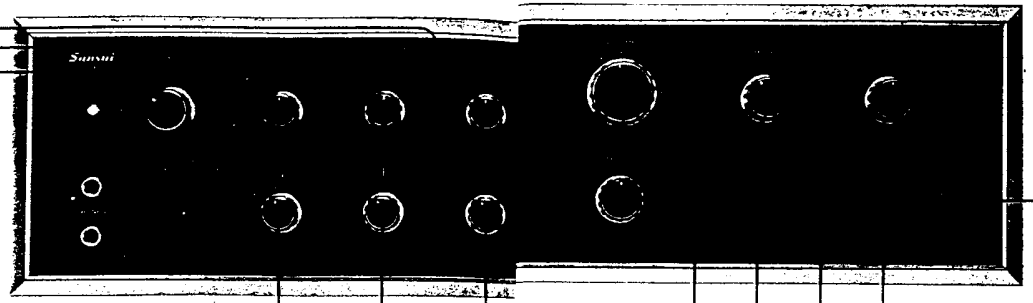
SWITCHES AND CONTROLS



Treble Tone Control

Use to control the intensity of high-frequency (treble) sound. Turning it clockwise from the 0 (zero) position accents it by 3dB per click step, while turning it counterclockwise weakens it by the same proportion.

Midrange Tone Control

Use to control the intensity of middle-frequency (midrange) sound. Turning it clockwise from the 0 (zero) position emphasizes it by 1dB per click step, while turning it counterclockwise de-emphasizes it by the same proportion.

Bass Tone Control

Use in the same manner as the Treble Tone Control to adjust the intensity of low-frequency (bass) sound by 3dB per click step.

Bass Tone Selector

Lets the operator select the frequency below which the Bass Tone Control functions:

DEFEAT: Disables the Bass Tone Control circuit, enabling the amplifier to amplify the low-frequency signals just as they exist in the program source.

150Hz: Bass Tone Control will affect the sound below 150Hz.

300Hz: Bass Tone Control will affect the sound below 300Hz.

600Hz: Bass Tone Control will affect the sound below 600Hz.

Midrange Tone Selector

Lets the operator select the frequency around which the Midrange Tone Control functions:

DEFEAT: Disables the Midrange Tone Control circuit, enabling the amplifier to amplify the middle-frequency signals just as they exist in the program source.

750Hz: Midrange Tone Control will affect the sound around 750Hz.

1.5kHz: Midrange Tone Control will affect the sound around 1.5kHz.

3kHz: Midrange Tone Control will affect the sound around 3kHz.

Treble Tone Selector

Lets the operator select the frequency above which the Treble Tone Control functions:

DEFEAT: Disables the Treble Tone Control, enabling the amplifier to amplify the high-frequency signals just as they exist in the program source.

6kHz: Treble Tone Control will affect the sound above 6kHz.

3.5kHz: Treble Tone Control will affect the sound above 3.5kHz.

2kHz: Treble Tone Control will affect the sound above 2kHz.

Loudness Switch

If desired, push down to IN to emphasize the highs and lows when listening at low volume levels. This is because the mechanism of human hearing is such that the high and low notes seem greatly enfeebled at low listening levels.

Noise Reduction Adaptor Switch

If you connect a noise reduction adaptor to the AU-9500 for the purpose of reducing various types of noise commonly generated during tape recording or playback, push this switch down to IN (refer to pages 11, 12).

4-Channel Adaptor Switch

If you connect a 4-channel adaptor to the AU-9500 and make other necessary connections, you can upgrade this 2-channel stereo amplifier to hear 4-channel stereo sound by pushing this switch down to IN (refer to page 13).

Tape-to-Tape Reprint Switch

If you have two tape decks connected to the amplifier, you can copy a recorded tape from one to the other.

DECK 1▶2: To record from the tape deck connected to the TAPE DECK-1 terminals to the one connected to the TAPE DECK-2 terminals.

DECK 2▶1: Reverse of the above.

SOURCE RECORD: To record or play on one tape deck alone. When neither of the above procedures is desired, keep the switch in this position.

* During the copying procedure, monitoring is possible on either recording or playback side by setting the Tape Monitor Switch to the PLAY-BACK DECK-1 or DECK-2 position. When the Tape Monitor Switch is turned to the SOURCE position, it is possible to enjoy other functions of the amplifier—such as playing records or receiving a radio broadcast—while the copying continues.

Tape Monitor Switch

Use this switch to reproduce a recorded tape or to monitor your recording. See page 4.

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CONNECTING SPEAKER SYSTEMS/PLAYING RECORDS

Connecting Speaker Systems

If you are connecting **only one pair of speaker systems** to the AU-9500, they may have any impedance from 4 to 16 ohms. Connect them to the SYSTEM A, B or C terminals on the rear panel, making sure not to confuse the left and right cables, plus and minus leads on the amplifier and speaker ends. But if you wish to connect **two pairs of speaker systems** and drive them simultaneously by turning the Power/Speakers Switch to A+B or A+C, each speaker system should have an impedance of 8 to 16 ohms. Using a system with a lower impedance could result in a breakdown of the amplifier.

Phasing of Speakers

First listen to the monophonic reproduction of any program source. If the speaker systems are in phase, the sound will seem to come from a point midway between the left and right speaker systems. If the sound is not directly in front of you, however, the speaker systems are out of phase. If you notice this condition, check the speaker connections once. To correct the condition, switch the amplifier off and reverse the connection of plus and minus leadwires of one speaker cable.

Connecting a Turntable

Connect it to the PHONO 1 or 2 terminals on the rear. For best results, use a turntable with a magnetic pickup cartridge.

If you use a turntable with a crystal or ceramic cartridge, connect it to the AUX terminals.

Phono-2 Pickup Load Switch

The input impedance of the PHONO-2 circuit can be switched over from 30kΩ to 50kΩ to 100kΩ with the PHONO-2 Pickup Load Switch on the rear panel. Its purpose is to match the load resistance of the cartridge in use, since different cartridges have different load resistance values and the magnitude of the impedance of a phono input circuit affects the level of high-frequency sound among other things.

Most cartridges have a load resistance value of 50kΩ, which is why the input impedance of the PHONO-1 circuit is also 50kΩ. If you have connected your turntable to the PHONO-2 circuit and find little difference in the reproduced tone quality as you change over the PHONO-2 Pickup Load Switch, leave the switch at the 50kΩ position.

Playing Records

1. Set the Selector Control to PHONO-1 or PHONO-2, depending on which input circuit you are using.
2. Set the Power/Speakers Switch to as required.
3. Switch on the turntable, adjusting it for the right speed of the record to be played.
4. Start playing the record.
5. Use the amplifier's other controls and switches to suit your taste or room acoustics.

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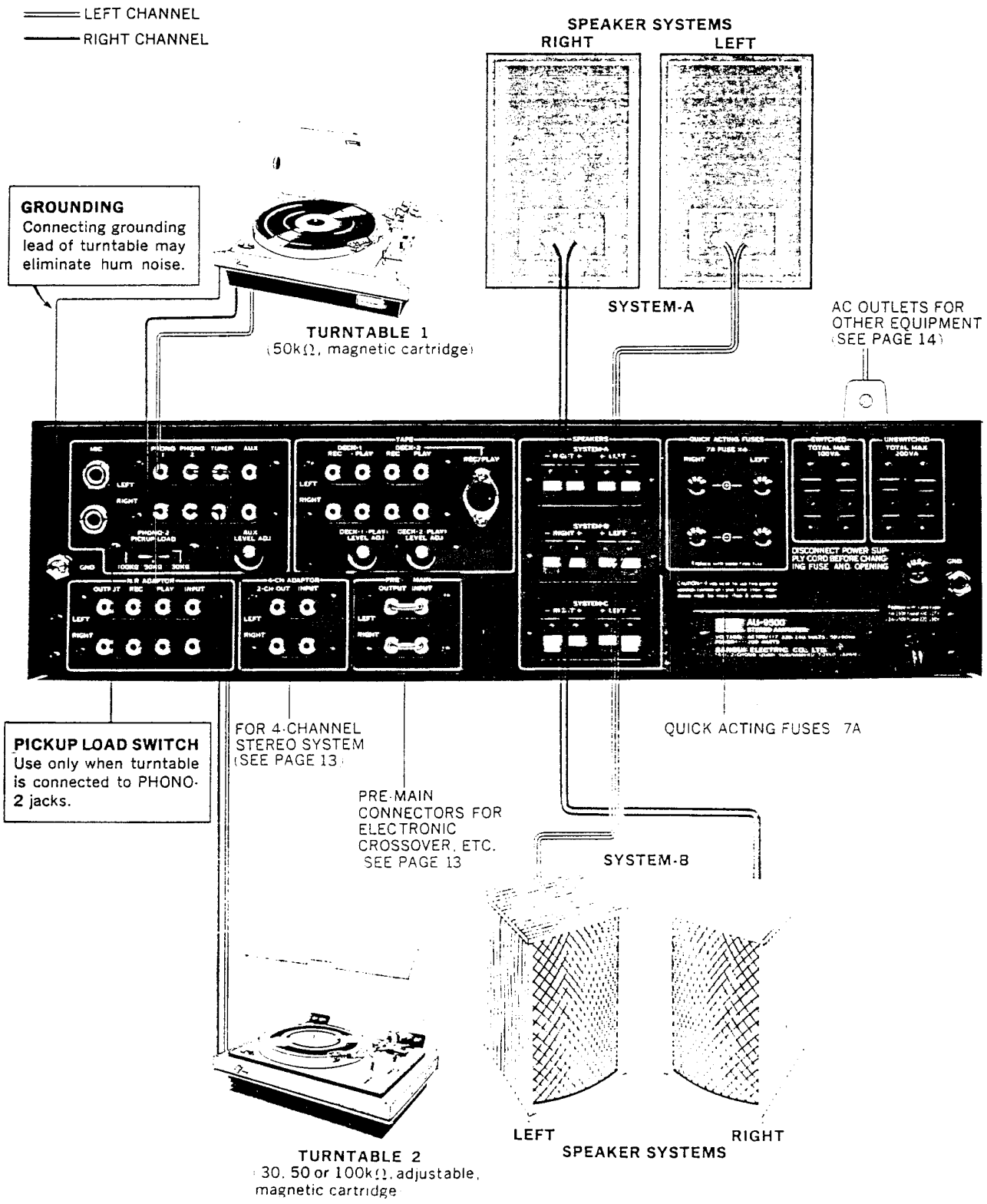

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RADIO RECEPTION/USING MICROPHONES

Connecting a Tuner

Connect a tuner to the TUNER terminals on the rear panel, utilizing shielded cables with pin plugs. If the tuner has no output level control of its own, it is more convenient to connect it to the AUX terminals instead. Since an input level adjustor (indicated as AUX LEVEL ADJ) is provided for the AUX input circuit, this will make it possible to match the tuner input level with those of other program source components, saving you the trouble of adjusting the volume each time you change the Selector Control over.

Microphones

It is recommended to use a high-impedance (10kΩ—50kΩ) microphone, although a low-impedance one (600Ω) will be more effective if you wish to use it several meters away from the amplifier. If using a low-impedance one with a small output (such as a dynamic type low-impedance microphone), you'll need a matching transformer between the microphone cord and the amplifiers's microphone terminal.

Howling

Loud oscillating noise may be heard from your speaker systems when using a microphone. This is a phenomenon called howling, and happens because the sound from your speakers is fed back to the microphone and amplified again, repeating the process infinitely. It is more likely to take place in an acoustically reflective room, especially if you raise the sound volume.

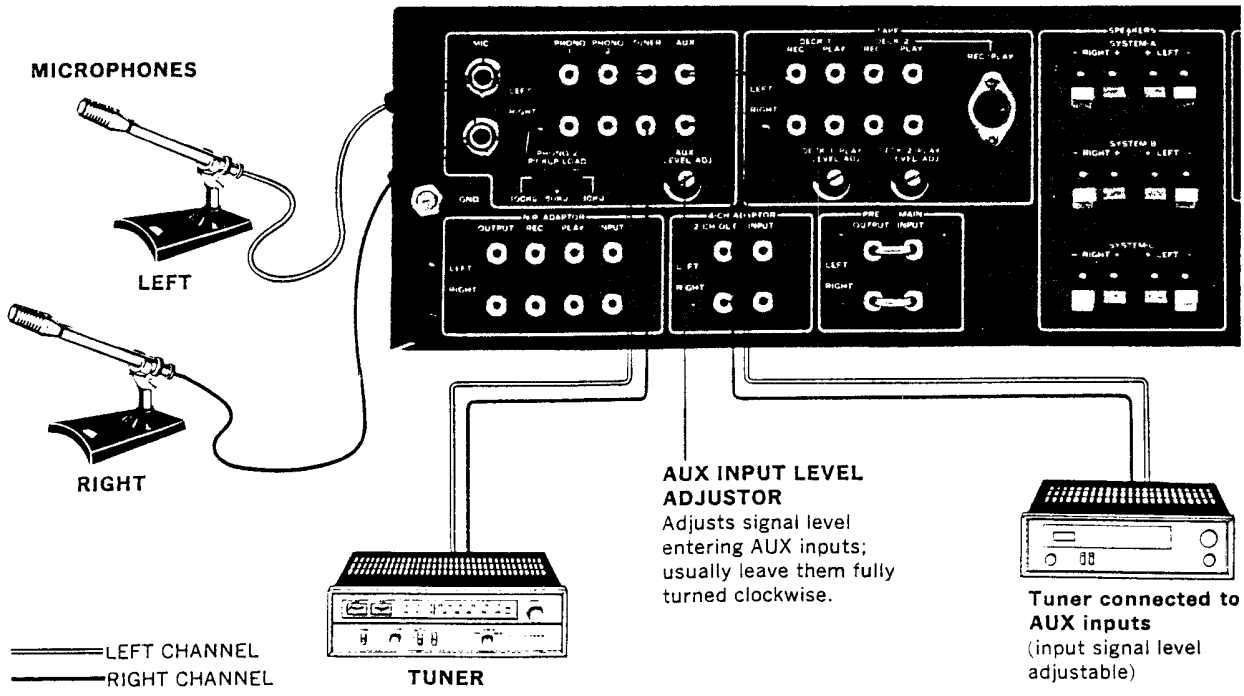
It can be avoided either by directing or moving the microphone away from the speaker systems. Also, it may stop if you manipulate the high and/or low filter switches.

Radio Reception

1. Set the Selector Control to the TUNER position.
2. Operate the tuner to receive the desired station. Make appropriate settings of controls on the tuner.
3. Use the amplifier's other controls and switches to suit your taste or room acoustics.

Using Microphones

1. Set the Selector Control to the MIC position.
2. If only one microphone is used, set the Mode Switch to MONO L or R depending on which input is being used.



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QUICK CHECK LIST OF SIMPLE MISTAKES

Some of the troubles which seem to result from a malfunction of the amplifier—including the complete absence of sound from your speaker systems—are caused by wrong operation and the negligence of simple maintenance, and can be quickly corrected by making a simple investigation and providing simple cures. If, after making all the preparations and operating the amplifier as required, no sound is heard from your speaker systems, go over the following check list once to make sure you haven't made any simple mistake.

Connections

1. Have you connected the power cord to a wall AC outlet?
2. Are the connecting cables for the turntable and tape deck not loose?
3. Are the speaker cables not loose from the amplifier's jacks or the speaker systems?
4. If you are utilizing two pairs of speaker systems at once, does each speaker system have an impedance of 8 ohms or more? If not, the protective quick-acting fuses may blow and disable the amplifier.

Operating Procedure

1. Have you turned on the Power/Speakers Switch?
2. Is the Tape Monitor Switch not set to PLAY-BACK position, though you don't want to reproduce a tape?
3. Is the Selector Control set to the correct position?
4. Is the Power/Speaakers Switch set to the correct position?
5. Is the 4-Channel Adaptor Switch not pushed down, though you are not using a 4-channel rear amplifier or adaptor?
6. Is the Noise Reduction Adaptor Switch not pushed down, though you are not using a noise reduction adaptor?

Hints for Quick Checking

1. If absolutely no sound is heard from the speaker systems, check the program source components (tuner, turntable, etc.), amplifier and speaker systems in that order and see if they are connected and operated correctly. The most common causes are, believe it or not, the power cord unplugged from the wall AC outlet and the connecting cables unplugged from the jacks.
2. If the amplifier plays a record normally, it is not faulty. Check other components and their connections.
3. If hum noise is of a constant level, it may be stopped simply by connecting the grounding lead of the program source component(s) to the amplifier's GND terminal.

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RECORDING AND PLAYBACK BY TAPE DECKS

Connecting Tape Decks

The AU-9500 connects up to two tape decks for recording and playback. Connect the input terminals of a tape deck to either TAPE DECK-1 or 2 REC terminals of the amplifier, and its output terminals to the PLAY terminals of the same circuit. The DIN socket is a part of the TAPE DECK-2 circuit and can be used only if your tape deck is equipped with a similar socket. It is manufactured according to the German industrial standard to permit tape recording and playback from a single cable with a special 5-pin plug on each end.

Should you wish to connect more than two tape decks, you may connect the third deck to the 4-CH ADAPTOR terminals. The OUTPUT terminals have the same electrical function as the REC terminals, while the input terminals are equivalent to the PLAY terminals.

Playback Procedure

1. Set the amplifier's Tape Monitor Switch to either PLAYBACK DECK-1 or DECK-2, depending on which circuit is accommodating your tape deck.
2. Engage the tape deck in the playback mode.

Recording Procedure

1. Prepare the program source to be recorded and keep it ready to be reproduced. Be sure to adjust the Selector Control to the appropriate position.
2. Engage the tape deck in the recording mode and start recording, adjusting the recording level with the control(s) on the tape deck. The controls on the amplifier do not affect the sound being recorded.
3. If you want to monitor the sound as you record it, your tape deck must be a 3-head one. If it is, you can monitor by following exactly the same procedure as for playback (described above). Make sure necessary adjustments are made on the tape deck itself for playback. If your tape deck only has a combined record/play head, set the Tape Monitor Switch to SOURCE and listen to the sound before it is recorded.

Copying of Recorded Tape

1. Adjust the Tape-to-Tape Reprint Switch to either DECK 1▶2 or DECK 2▶1, depending on which tape deck you wish to use for playback and which tape deck for recording. The DECK 1▶2 position is for when you are using the first tape deck for playback and the second one for recording. The DECK 2▶1 position is for the opposite situation.
2. Operate the two tape decks and begin playback on one tape deck and recording on the other.
3. If you set the Tape Monitor Switch to the tape deck you are using to record, you can monitor the recording being made. If you set it to the tape deck that is being used to reproduce, you can hear the reproduced sound before it is re-recorded (copied) into the other tape deck.
4. If you set the Tape Monitor Switch to SOURCE, the tape reprint circuit becomes independent of the rest of the amplifier, enabling you to enjoy its other functions—such as playing records or receiving a radio broadcast—while the tape-to-tape copying is being performed.

Noise Reduction System

A noise reduction system, as its name indicates, is designed to reduce various types of noise commonly generated during tape recording or playback. The most annoying of such noise is the so-called tape hiss, which is heard over the entire audio spectrum of recorded sound and which is almost inherent in tape recording.

While different kinds of noise reduction system have been proposed by different manufacturers, they are almost always designed to dilute this unpleasant tape hiss. The most recent innovation in this field is called the Dolby Noise Reduction System, which already seems to have won worldwide recognition as one of the most effective yet deviced.

As tape hiss and other types of noise invariably increase in quantity as the tape speed slows down, the effect of reducing noise by a noise reduction adaptor is most striking when such an adaptor is incorporated into a cassette tape deck.

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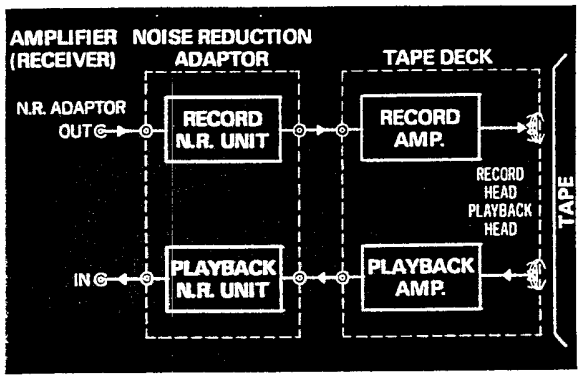
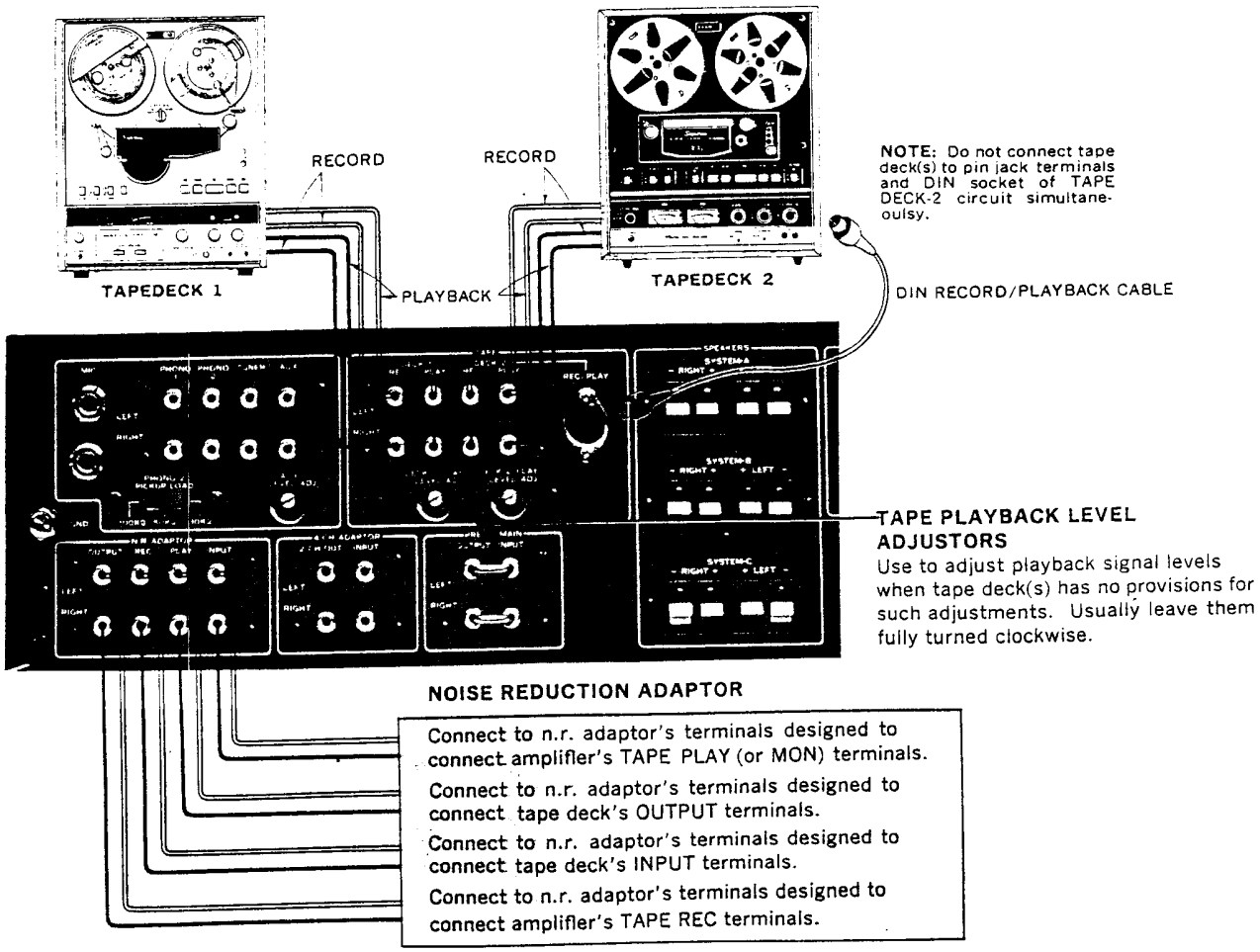
Construction of a Noise Reduction System

Output signals delivered at the amplifier's tape recording terminals are fed through the recording noise reduction unit in a noise reduction adaptor (abbreviated as n.r. adaptor hereafter), then recorded into a tape by a tape deck. For playback, the output signals given at the tape deck's playback or output terminals are fed through the playback noise reduction unit of the adaptor and into the amplifier's tape monitor or input terminals.

A block diagram of a typical noise reduction system is presented on the right.




RECORD
RECORD
TAPEDECK 1
PLAYBACK
TAPEDECK 2
NOTE: Do not connect tape deck(s) to pin jack terminals and DIN socket of TAPE DECK-2 circuit simultaneoulsy.
DIN RECORD/PLAYBACK CABLE
TAPE PLAYBACK LEVEL ADJUSTORS
Use to adjust playback signal levels when tape deck(s) has no provisions for such adjustments. Usually leave them fully turned clockwise.
NOISE REDUCTION ADAPTOR
Connect to n.r. adaptor's terminals designed to connect amplifier's TAPE PLAY (or MON) terminals.
Connect to n.r. adaptor's terminals designed to connect tape deck's OUTPUT terminals.
Connect to n.r. adaptor's terminals designed to connect tape deck's INPUT terminals.
Connect to n.r. adaptor's terminals designed to connect amplifier's TAPE REC terminals.

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UPGRADING YOUR STEREO

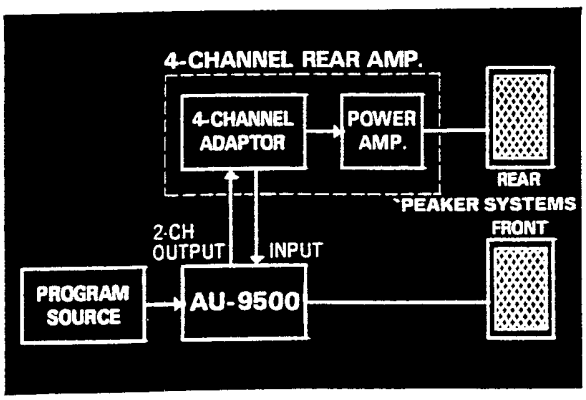
4-Channel Stereo System

The sound we hear daily is a mixture of the sound that reaches our ears straight from the sound source—be it a musical instrument, a jet, a man's mouth or what have you—and the 'indirect sounds' that arrive at your ears only after they are reflected off various surfaces, such as the walls, ceiling and so forth.

Four-channel recordings are made using two microphones in the front of the concert hall and two in the rear (to simplify the explanation). The 'indirect sounds' with their complicated waveforms are mainly picked up by the two microphones in the rear, and reproduced out of the two rear speakers in a 4-channel stereo set-up for greatly enhanced 'ambience' effects. The end effect is almost as if the original live performance were re-played right in your own room. This new approach can now be yours simply by adding certain equipment—mainly, a Sansui 4-channel rear amplifier with its unique QS REGULAR MATRIX system (patents pending), and a second pair of speaker systems—to your 2-channel stereo system.

Connection of such a rear amplifier or 4-channel adaptor is easy. Just connect the 4-CH ADAPTOR 2-CH OUT terminals of the AU-9500 with the input terminals of such rear amplifier or 4-channel adaptor, then connect its 4-CH ADAPTOR INPUT terminals with the output terminals of such unit.

To operate the rear amplifier or 4-channel adaptor so connected, push the 4-Channel Adaptor Switch on the amplifier's front panel, and otherwise follow its manufacturer's instructions. Electrically, the 4-CH ADAPTOR 2-CH OUT and INPUT terminals possess the same functions as the TAPE REC and MON terminals, respectively.



Electronic Crossover System

The electronic crossover system affords these advantages:

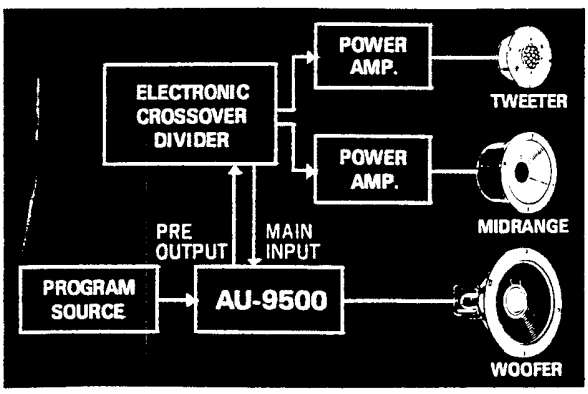
1. It enables the tweeters, midranges and woofers to be driven by separate power amplifiers. So you can make optimum use of speakers of different impedances and efficiencies, as well as power amplifiers of different output capacities and tone qualities.

2. It eliminates the need for the conventional LC type crossover network. With the electronic crossover divider, the amplifier's damping factor is no longer affected and you can set crossover frequencies as you like.

Electronic Crossover System Using the AU-9500

The preamplifier and power amplifier sections of the AU-9500 can be disconnected for independent usage, the latter section being available for driving a separate speaker in an electronic crossover system. To build such a system, you will need two- or three-way speaker systems and an electronic crossover divider, along with and at least one or two additional power amplifiers.

Connection is not all that difficult. First remove the Pre-Main Connectors uniting the amplifier's preamplifier outputs and main (power) amplifier inputs. Then just connect the PRE OUTPUT to the input terminals of the electronic crossover divider, which divides the input signals into high, medium and low range(s). Finally, couple the separate output terminals of the electronic crossover divider to the amplifier's MAIN INPUT and the additional power amplifier(s), feeding their outputs separately into individual speakers, as illustrated below.



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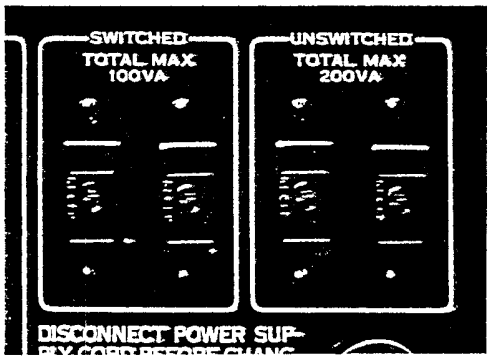
SIMPLE MAINTENANCE HINTS

Rear-Panel AC Outlets

Of the four AC outlets provided on the rear panel, the ones marked 'SWITCHED' are controlled by the front-panel Power/Speakers Switch. The other, marked 'UNSWITCHED,' are always 'live' and independent of the Power/Speakers Switch. The voltage delivered at these AC outlets is the same as the power supply voltage used.

The two 'SWITCHED' outlets have a total power capacity of 100VA, and the UNSWITCHED ones 200VA. Before you connect any appliance to them, be sure that it is adjusted for use at the same power supply voltage, and that its power consumption is not beyond these figures. Otherwise, serious danger could result.



Make Proper Connections

Connect the leadwires of speaker cables properly. If they are loose or touch other parts, the amplifier may produce noise and eventually break down. Also, before connecting a turntable, tuner and/or tape deck, be sure to read their manufacturers' instructions.

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Howling and Hum

Take care never to place a turntable on or too near a speaker system, or the vibration produced by the speaker system is transmitted and causes an oscillating phenomenon called howling. It is best to keep these components completely separated, but if this is impossible, place a thick cushion between them. Humming, in contrast, is a phenomenon caused by incomplete or incorrect turntable-amplifier connections. Should this occur, check to see if all connections are completely made and if the connecting cables are sufficiently thick. Hum noise may sometimes be eliminated by connecting the grounding lead of the turntable to the GND terminal on the amplifier's rear panel.

Heat Radiated inside the Amplifier

The bonnet of the AU-9500 is designed so that any heat radiated inside will effectively escape through it. Proper care should therefore be taken of the dissipation of such heat if you wish to place something on top of the amplifier or place it inside a closed box, etc. Above all, avoid placing it where it may be exposed to the direct sunlight.

It is prohibited, however, to remove the amplifier's bonnet or bottom plate to improve the ventilation.

Accessory List

1.	OPERATING INSTRUCTIONS AND SERVICE MANUAL	1
2.	OPERATING INSTRUCTIONS SHEET	1
3.	PIN PLUGS	4
4.	BUTTERFLY BOLTS	2
5.	WASHERS	2
6.	POLISHING CLOTH	1
7.	QUICK-ACTING FUSES (7A)	2

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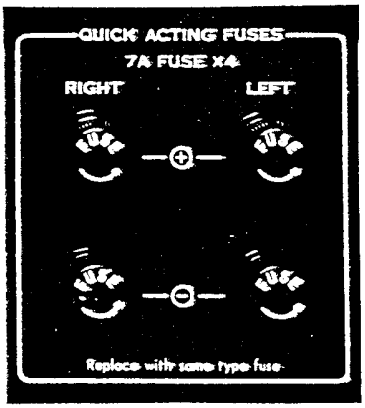
SIMPLE MAINTENANCE HINTS

Quick-Acting Fuses

The AU-9500 is doubly protected with a relay-equipped protection circuit and four quick-acting fuses. If no sound or distorted sound is heard from either or both speaker systems, switch off the amplifier, disconnect the power cord from the wall AC outlet, remove the cover on the rear panel concealing the quick-acting fuses and examine them. If you find any of them blown, find and eliminate the cause of the blowout, then replace it with a new glass-tubed quick-acting fuse supplied.

If the relay-equipped protection circuit ever goes to work, the sound may come out intermittently. If it happens, check the connections of various equipment and your operating procedure once.



Should the Power Fuse Blow

If the amplifier simply remains dead even after you have turned on its Power/Speakers Switch, it is possible that its power fuse has blown.

If this happens, switch off the amplifier, disconnect the power cord from the wall AC outlet at once and examine the power fuse on the amplifier's rear panel. If you find it blown, replace it with a new glass-tubed fuse of the rated capacity (6 amperes for 100 to 127 volts, 3 amperes for 220 to 250 volts). Never use a fuse of a different capacity or a piece of wire, even as a stop-gap measure, or serious danger could result.

Voltage Adjustment

Your AU-9500 is adjusted in our factory to operate at the power supply voltage of your area. That voltage is indicated on the amplifier. Should you, after purchasing the amplifier, move to an area where the power supply voltage is different from the one indicated, adjust the amplifier's voltage selector plugs as follows:

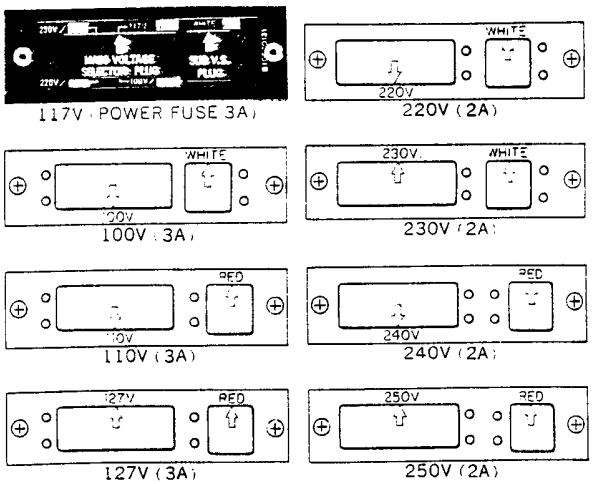
1. Remove the two screws securing the name plate on the rear, then remove the name plate.

2. Set the arrow mark on the Main Voltage Selector Plug to the new voltage: 100, 110, 117, 127, 220, 230, 240 or 250 volts.

3. If the new voltage is indicated in red, set the arrow mark on the adjacent Sub Voltage Selector Plug to "RED". If it is indicated in white, however, set that arrow to "WHITE".

4. Change the power fuse as well whenever the power supply voltage has changed. For 100—127 volt operation, use a 6-ampere glass-tubed fuse. For 220—250 volt operation, use a 3-ampere one.

5. Where the power supply voltage considerably fluctuates, the voltage selector plugs may be reset to avoid unpleasant side effects of such fluctuation. Reset them to the voltage immediately higher than the peak of the fluctuation.



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SPECIFICATIONS

POWER OUTPUT:
- IHF MUSIC POWER: 260W (4Ω 1,000Hz)
  220W (8Ω 1,000Hz)
- CONTINUOUS RMS POWER (each channel driven)
  120/120W (4Ω 1,000Hz)
  85/85W (8Ω 1,000Hz)
- CONTINUOUS RMS POWER (both channels driven)
  115+115W (4Ω 1,000Hz)
  80+80W (8Ω 1,000Hz)
- CONTINUOUS RMS POWER (both channels driven at rated distortion, 20 to 20,000Hz)
  75+75W (8Ω)

TOTAL HARMONIC DISTORTION (at rated output):
- OVER-ALL (from AUX): less than 0.1%
- PREAMPLIFIER ONLY: less than 0.05%
- POWER AMPLIFIER ONLY: less than 0.1%

INTERMODULATION DISTORTION (rated output, 70Hz: 7,000Hz=4 : 1 SMPTE method):
- OVER-ALL (from AUX): less than 0.1%
- PREAMPLIFIER ONLY: less than 0.05%
- POWER AMPLIFIER ONLY: less than 0.1%

IHF POWER BANDWIDTH (each channel driven, at rated distortion): 5 to 40,000Hz

FREQUENCY RESPONSE (power output at 1 watt):
- PHONO-1 and 2: RIAA equalization curve
  ±0.5dB (30 to 15,000Hz)
- OVER-ALL (from AUX): 15 to 40,000Hz $^{+0}_{-1}$dB
- POWER AMPLIFIER ONLY: 30 to 80,000Hz $^{+0}_{-1}$dB.
- LOAD IMPEDANCE: 4 to 16Ω

DAMPING FACTOR: approx. 50 at 8Ω dummy load

INPUT LEVEL AND IMPEDANCE (at 1,000Hz):
- PHONO-1: 2.5mV 50kΩ
- PHONO-2: 2.5mV 30k, 50k, 100kΩ adjustable
  Max. Input Capability 300mV (THD: less than 0.5%)
- MIC: 2.5mV 50kΩ
- TUNER: 100mV 50kΩ
- AUX: 100mV 50kΩ input level adjustable
- TAPE DECK-1 and 2
  PLAY 100mV 50kΩ input level adjustable
- TAPE DECK-2 REC/PLAY 100mV 50kΩ
- 4-CH ADAPTOR INPUT 100mV 50kΩ
- N.R. ADAPTOR INPUT 100mV 50kΩ
- MAIN (POWER) INPUT 800mV 50kΩ

OUTPUT LEVEL AND IMPEDANCE (at 1,000Hz):
- TAPE DECK-1 and 2 REC 100mV 1.5kΩ
- TAPE DECK-2 REC/PLAY 30mV 70kΩ
- 4-CH ADAPTOR
  2-CH OUT 100mV 1.5kΩ
- N.R. ADAPTOR OUTPUT 100mV 1.5kΩ
- PRE OUTPUT 800mV 1.5kΩ
  Max. Output Level 4.5V (T.H.D.: less than 0.5%)

CROSSTALK (rated output at 1,000Hz):
- PHONO-1 and 2: better than 50dB
- MIC: better than 50dB
- TUNER: better than 50dB
- AUX: better than 50dB
- MAIN (POWER) INPUT: better than 60dB

IHF HUM AND NOISE:
- PHONO-1 AND 2: better than 75dB
- MIC: better than 65dB
- TUNER: better than 85dB
- AUX: better than 85dB
- MAIN (POWER) INPUT: better than 100dB

SWITCHES AND CONTROLS:
- BASS: +15dB, −15dB at 20Hz
- MIDRANGE: +5dB, −5dB at 1,500Hz
- TREBLE: +15dB, −15dB at 20,000Hz
- LOUDNESS (volume control at −30dB):
  +10dB at 50Hz
  +8dB at 10,000Hz
- LOW FILTER: −3dB at 50Hz (12dB/oct)
  −3dB at 100Hz (12dB/oct)
- HIGH FILTER: −3dB at 12,000Hz (12dB/oct)
  −3dB at 6,000Hz (12dB/oct)

POWER REQUIREMENTS: 100, 110, 117, 127, 220, 230, 240, 250V 50/60Hz

AC OUTLETS:
- SWITCHED: total 100VA
- UNSWITCHED: total 200VA

POWER CONSUMPTION: 550VA (max.)
205W (Rated)

DIMENSIONS: 140mm (5 9/16")H
500mm (19 11/16")W
347mm (13 11/16")D

WEIGHT: 23.3kg (51.26 lbs)

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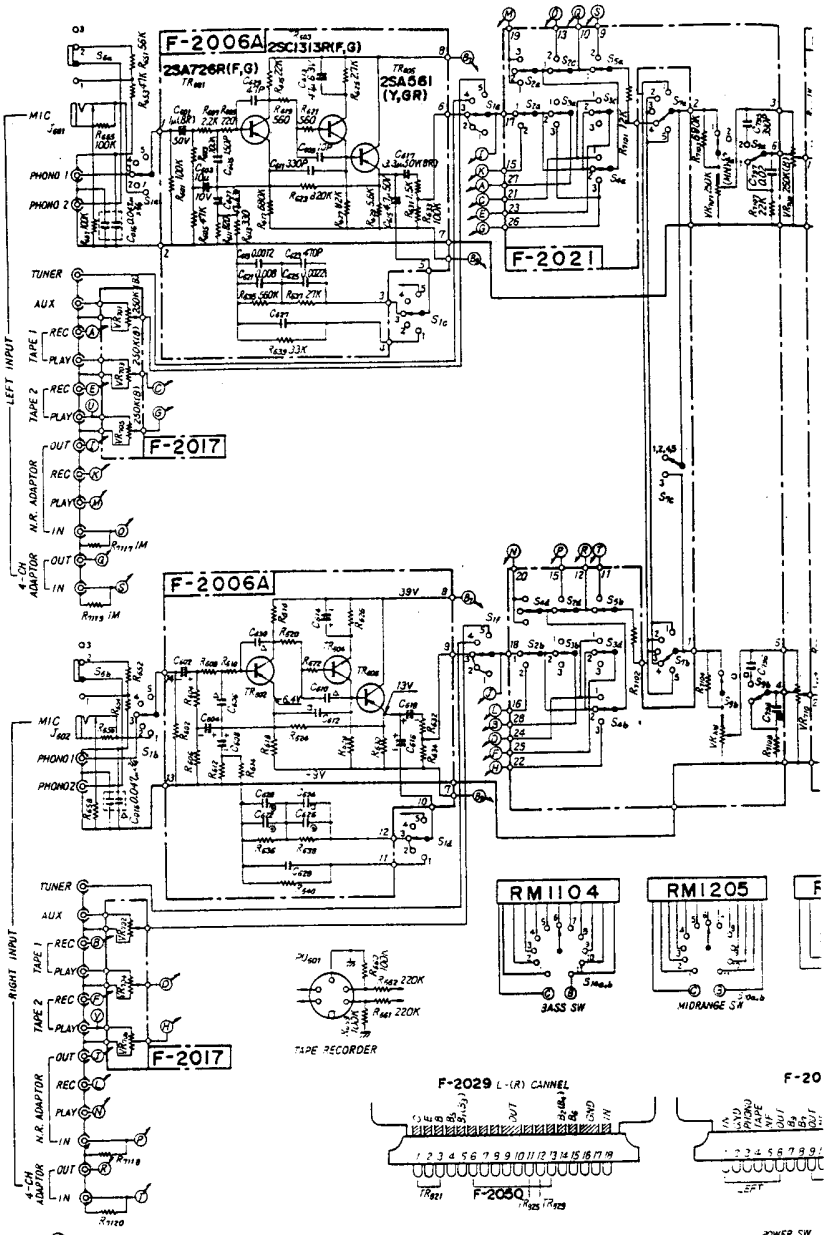
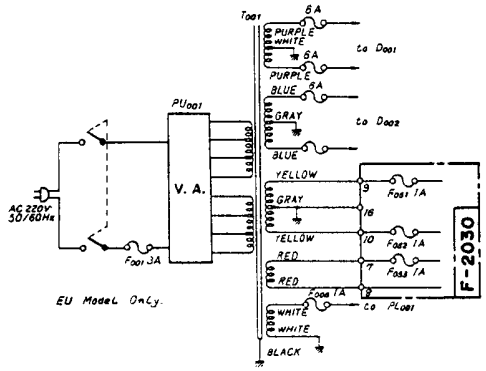
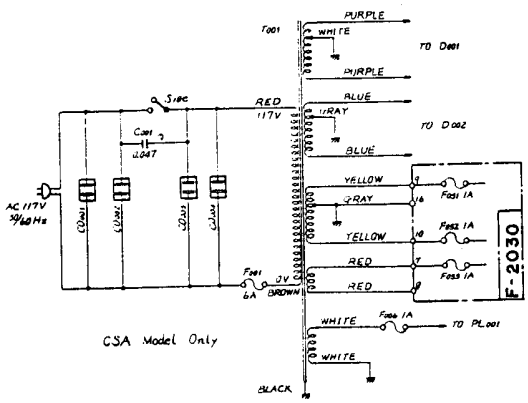
SCHEMATIC DIAGRAM







S_1 (a~F) SELECTOR SW
1. MIC
2. PHONO 2
3. PHONO 1
4. TUNER
5. AUX

S_2 (a~d) N.R. ADAPTOR SW
1. OUT
2. IN

S_3 (a~d) TAPE TO TAPE REPRINT SW
1. DECK 1 ▶ 2
2. SOURCE RECORD
3. DECK 2 ▶ 1

S_4 (a~d) TAPE MONITOR SW
1. PLAYBACK DECK-1
2. SOURCE
3. PLAYBACK DECK-2

S_5 (a,b) 4-CH ADAPTOR SW
1. OUT
2. IN

S_6 (a,b) PHONO PICKUP LOAD SW
1. 30K OHMS
2. 50K OHMS
3. 100K OHMS

S_7 (a~c) MODE SW
1. STEREO REVERSE
2. STEREO NORMAL
3. MONO L-R
4. MONO L
5. MONO R

S_8 (a,b) MUTING SW
1. NORMAL
2. 20dB

S_9 (a,b) LOUDNESS SW
1. OUT
2. IN

S_{10} (a,b) MIDRANGE CONTROL
1~5 CUT
6 FLAT

S_{11} (a,b) MIDRANGE SELECTOR SW
1. DEFEAT
2. 750Hz
3. 1.5KHz
4. 3KHz

S_{12} (a,b) TREBLE CONTROL
1~5. CUT
6. FLAT
7~11. BOOST

S_{13} (a~e) TREBLE SELECTOR SW
1. DEFEAT
2. 6KHz
3. 3.5KHz
4. 2KHz

S_{14} (a,b) BASS CONTROL
1~5. CUT
6. FLAT
7~11. BOOST

S_{15} (a,b) BASS SELECTOR SW
1. DEFEAT
2. 150Hz
3. 300Hz
4. 600Hz

S_{16} (a~c) LOW FILTOR SW
1. 50Hz
2. OFF
3. 100Hz

S_{17} (a~d) HIGH FILTOR SW
1. 5KHz
2. OFF
3. 12KHz

S_{18} (a~e) POWER/SPEAKERS SW
1. POWER OFF
2. A
3. B
4. C
5. A+B
6. A+C

LA Model Only.

$VR_{701,702}$ AUX LEVEL ADJ.
$VR_{703,704}$ DECK-1(PLAY) LEVEL ADJ.
$VR_{705,706}$ DECK-2(PLAY) LEVEL ADJ.
$VR_{707,708}$ BALANCE
$VR_{709,710}$ VOLUME
VR_{501} DC BALANCE ADJ.
VR_{502} BIAS CURRENT ADJ.

POWER SW S_{18a}
AC 100~250V 50/60Hz
UNSWITCHED 220VA
SWITCHED TOTAL 10

SYMBOL
METALIZED
OIL
CERAMIC
MYLAR
TANTALUM
STYROL

ALL RESISTORS A
UNLESS OTHENISE

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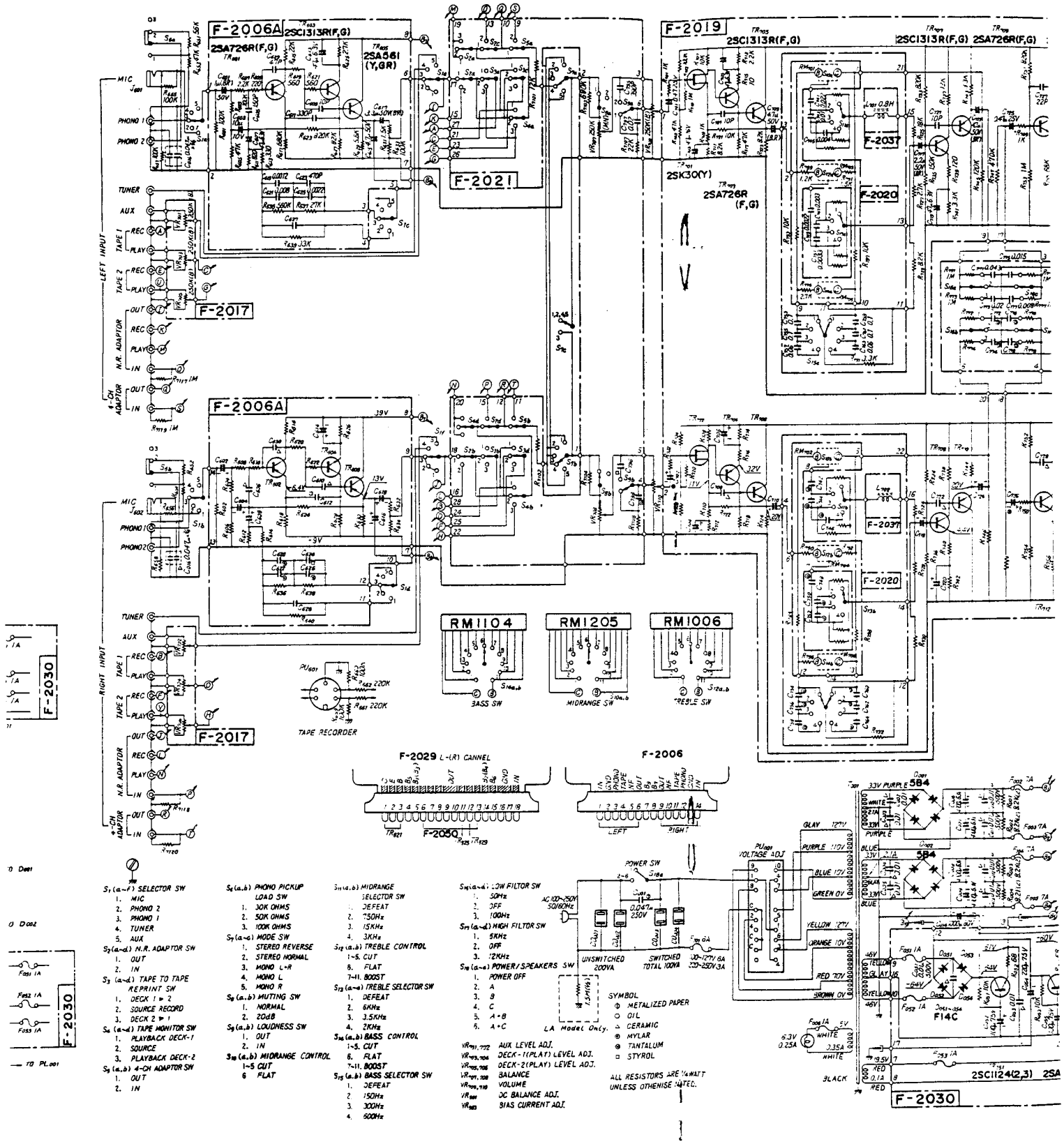

S_1(a~f) SELECTOR SW
1. MIC
2. PHONO 2
3. PHONO 1
4. TUNER
5. AUX

S_2(a~d) N.R. ADAPTOR SW
1. OUT
2. IN

S_3 (a~d) TAPE TO TAPE REPRINT SW
1. DECK 1 ▶ 2
2. SOURCE RECORD
3. DECK 2 ▶ 1

S_4 (a~d) TAPE MONITOR SW
1. PLAYBACK DECK-1
2. SOURCE
3. PLAYBACK DECK-2

S_5 (a,b) 4-CH ADAPTOR SW
1. OUT
2. IN

S_6(a,b) PHONO PICKUP LOAD SW
1. 30K OHMS
2. 50K OHMS
3. 100K OHMS

S_7(a~c) MODE SW
1. STEREO REVERSE
2. STEREO NORMAL
3. MONO L-R
4. MONO L
5. MONO R

S_8 (a,b) MUTING SW
1. NORMAL
2. 20dB

S_9 (a,b) LOUDNESS SW
1. OUT
2. IN

S_{10} (a,b) MIDRANGE CONTROL
1~5 CUT
6 FLAT

S_{11}(a,b) MIDRANGE SELECTOR SW
1. DEFEAT
2. 750Hz
3. 1.5KHz
4. 3KHz

S_{12} (a,b) TREBLE CONTROL
1~5. CUT
6. FLAT
7~11. BOOST

S_{13} (a~e) TREBLE SELECTOR SW
1. DEFEAT
2. 6KHz
3. 3.5KHz
4. 2KHz

S_{14} (a,b) BASS CONTROL
1~5. CUT
6. FLAT
7~11. BOOST

S_{15} (a,b) BASS SELECTOR SW
1. DEFEAT
2. 150Hz
3. 300Hz
4. 600Hz

S_{16}(a~d) LOW FILTOR SW
1. 50Hz
2. OFF
3. 100Hz

S_{17} (a~d) HIGH FILTOR SW
1. 5KHz
2. OFF
3. 12KHz

S_{18} (a~e) POWER/SPEAKERS SW
1. POWER OFF
2. A
3. B
4. C
5. A+B
6. A+C

L.A Model Only.

VR_{701}, 772 AUX LEVEL ADJ.
$VR_{703,704}$ DECK-1(PLAY) LEVEL ADJ.
$VR_{705,706}$ DECK-2(PLAY) LEVEL ADJ.
$VR_{707,708}$ BALANCE
$VR_{709,710}$ VOLUME
VR_{801} DC BALANCE ADJ.
VR_{803} BIAS CURRENT ADJ.

SYMBOL
Φ METALIZED PAPER
○ OIL
△ CERAMIC
⊕ MYLAR
⊗ TANTALUM
□ STYROL

ALL RESISTORS ARE ¼WATT UNLESS OTHENISE NATED.

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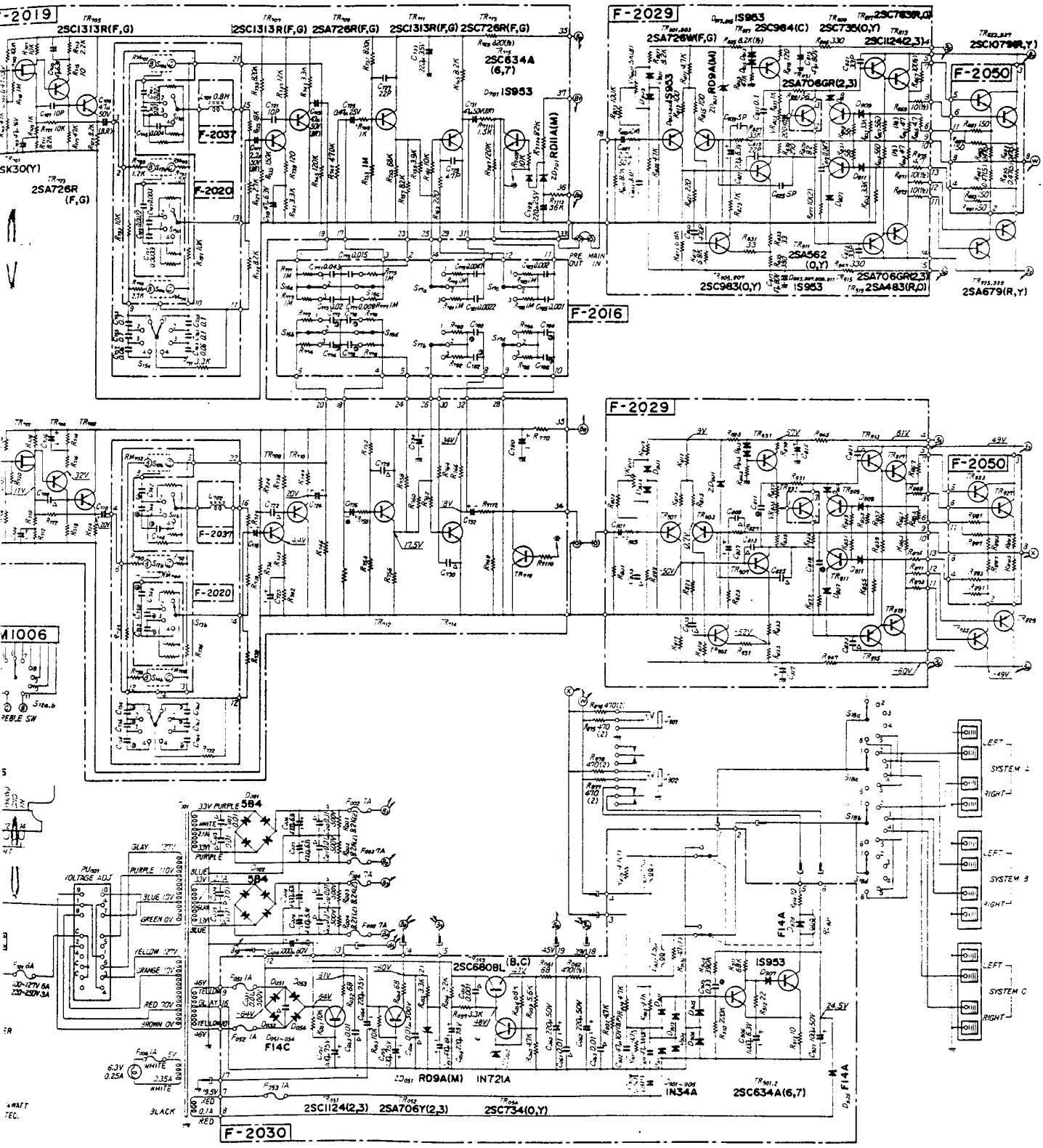

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GENERAL TROUBLESHOOTING CHART

PROGRAM SOURCE	SYMPTOM	PROBABLE CAUSE	WHAT TO DO
Tuner.	* Noise during AM reception.	* Interference by adjacent stations (called beat interference). * TV set is being used simultaneously.	* Peculiar to AM waves, and unavoidable to some extent. * Move TV set away from tuner and amplifier.
	* Noise heard at certain hours, in certain areas or over part of dial during AM reception.	* Interference by nearby electrical appliances.	* Attach noise limiter to appliance producing noise. * In some cases, can be eliminated by reversing power cord plug-AC outlet connections.
	* Pop noise during FM reception.	* Ignition noise from nearby automobile, motorcycle, etc.	* Adjust antenna location and height for maximum sensitivity. * Keep antenna away from streets. Note: In many cases, high-frequency noise during radio reception cannot be entirely eliminated. Try turning on amplifier's High Filter Switch or turning Treble Control counterclockwise.
Turntable.	* Hum noise.	* Unshielded cables used to connect turntable. * Minus (ground) wire of connecting cable is not connected completely. * Turntable motor or tonearm is not grounded.	* Use regular shielded cables. * Examine connecting cables, especially their plugs. * Connect grounding lead of turntable to amplifier's GND terminal.
		* Turntable is placed on top of or too close to speaker systems.	* Place thick cushion between turntable and speaker systems. * Change location of turntable and speaker systems. * If using microphone(s), move or direct them away from speaker systems.
	* Sound is shaky.	* Dust on record or pickup stylus. * Worn pickup stylus. * Improper stylus pressure.	* Clean record and pickup stylus. * Replace pickup stylus. * Adjust stylus pressure.
Tape Deck.	* Hiss noise.	* Magnetic heads are magnetized.	* Demagnetize heads. * Turn on High Filter Switch. * Connect noise reduction adaptor.
	* Sound is not clear.	* Dust on magnetic heads. * Tape is not pressed tight to heads.	* Clean heads. * Align tape transport mechanism.
General.	* When left and right channel sound volumes are balanced with amplifier's Balance Control, it does not come to center position.	* Left and right channel signal strengths vary with program source. * Left and right speaker systems have different efficiencies.	* Never mind. Optimum stereo effect is obtained by adjusting Balance Control so that sound comes from midway point between two speaker systems with Mode Switch set to MONO.
	* Musical instruments and singer not located clearly.	* Left-right, plus-minus connections of speaker systems, input cables are wrong.	* Examine connections once.
	* Want to listen at very low volume level at night.	* Fine adjustment of very low volume cannot be done with Volume Control.	* Turn on Muting Switch, then adjust Volume Control.

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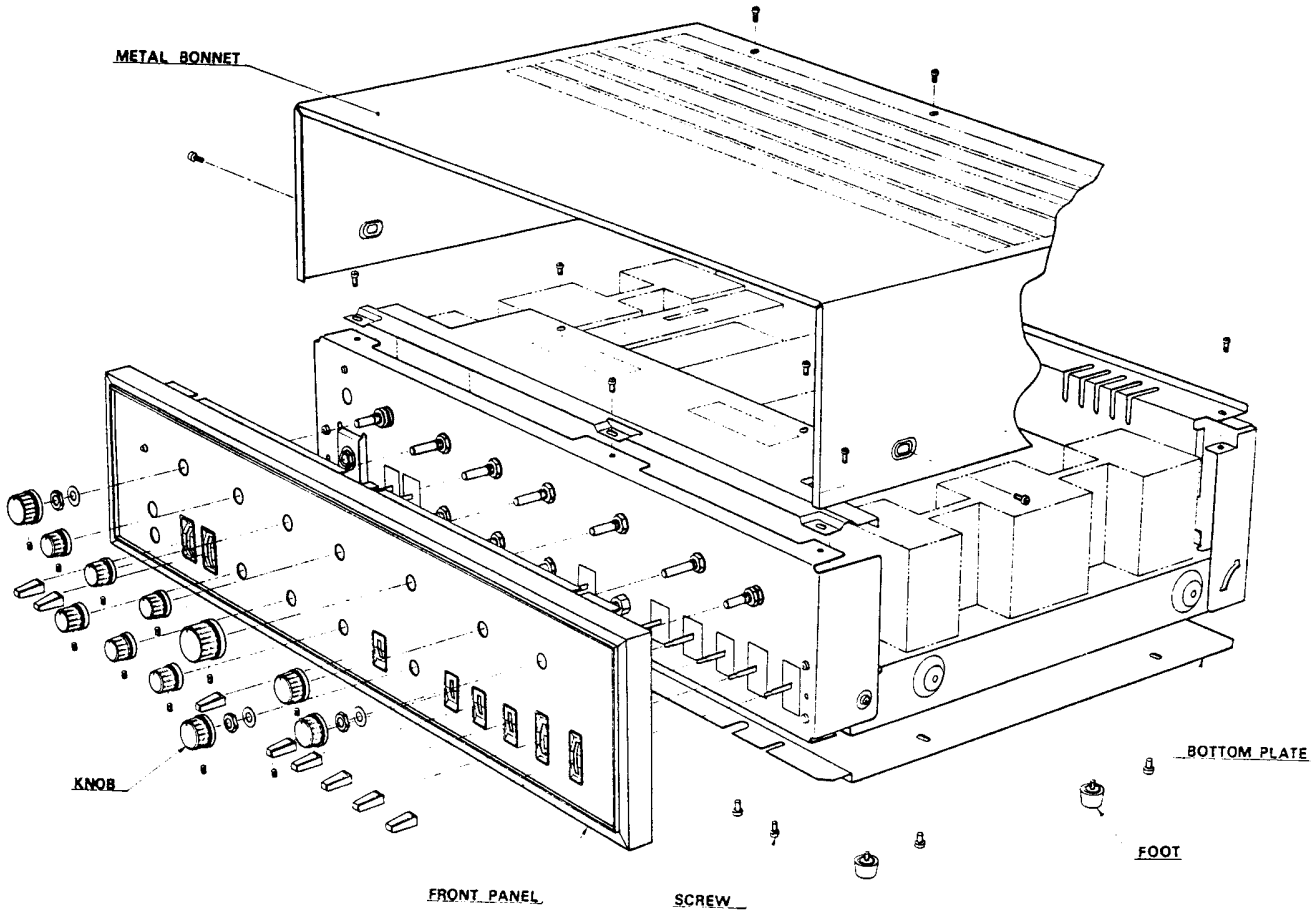
DISASSEMBLY PROCEDURE



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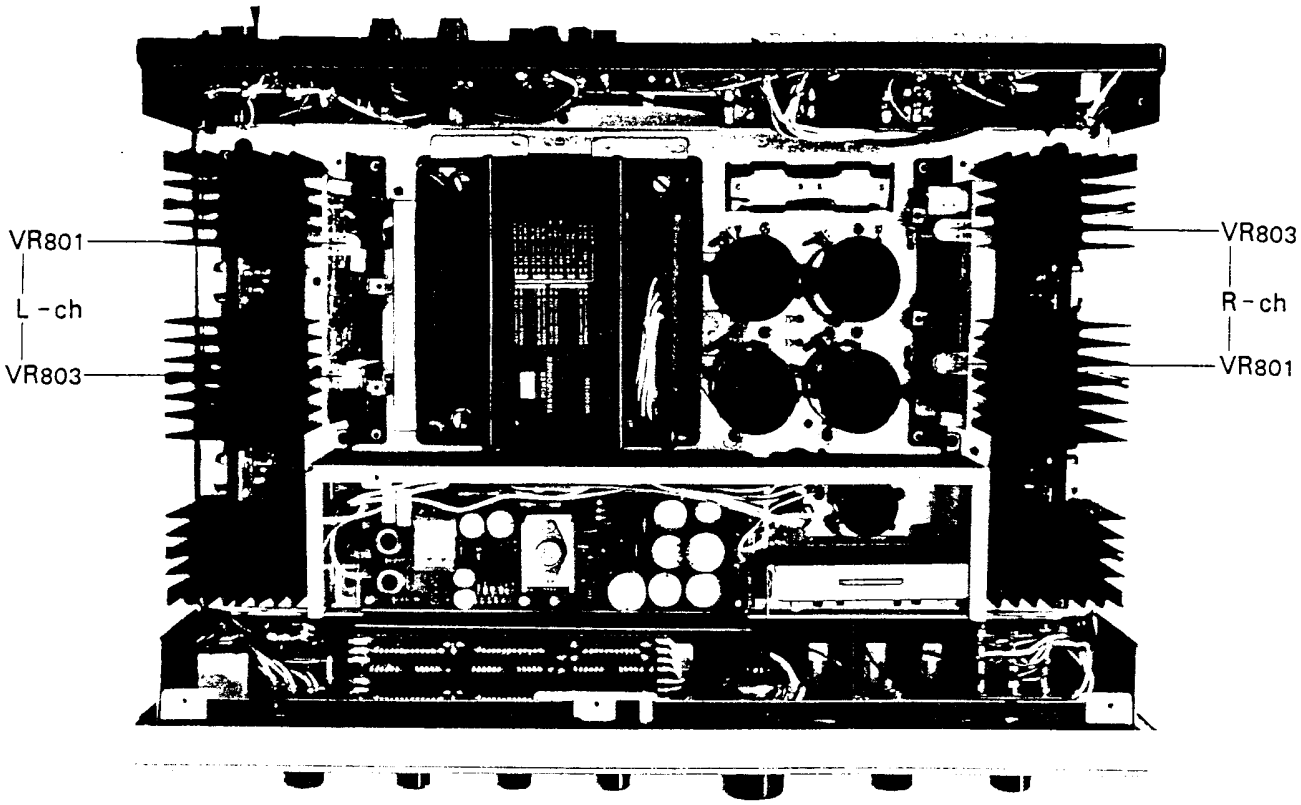
ALIGNMENT



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OUTPUT ADJUSTMENT OF POWER AMPLIFIER SECTION

STEP	CONNECT/ADJUST	REMARKS
1.	Connect DC voltmeter to left channel SYSTEM-A speaker terminals.	
2.	Turn Power/Speakers Switch to SYSTEM-A	Set DC voltmeter to 0.5V～3V range
3.	Adjust VR_{801} of left channel so that DC voltmeter indicates 0V (within ±30 mV). Repeat above procedure for right channel.	

CURRENT ADJUSTMENT OF POWER AMPLIFIER SECTION

STEP	AMMETER (TESTER)	CONNECT/ADJUST	REMARKS
1.		Remove F_{002} (F_{004}).	It is unnecessary to connect load resistance to speaker terminals.
2.		Turn VR_{803} of left (right) channel fully counterclockwise.	
3.		Turn Power/Speakers Switch to OFF.	
4.	Set to 100mA range.	Connect DC ammeter where F_{002} (F_{004}) was.	Use DC ammeter with 100mV or 50mA range.
5.		Adjust VR_{803} of left (right)channel so that DC ammeter indicates 30～40mA.	
6.		Turn Power/Speakers Switch off and replace F_{002} (F_{004}). Repeat above procedure for right channel (notations in parentheses are for right channel).	

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PRINTED CIRCUIT BOARDS AND PARTS LIST

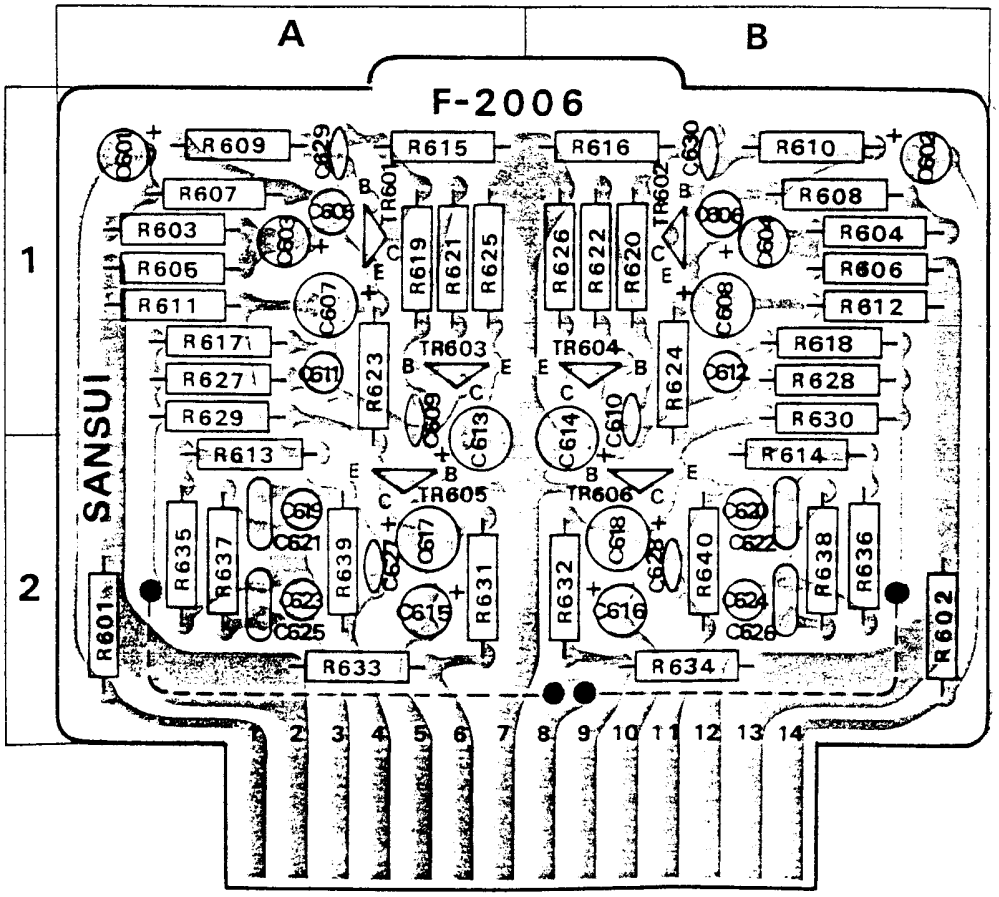
W: Parts No. **X:** Parts Name **Y:** Stock No. **Z:** Position of Parts

EQUALIZER BLOCK 〈F-2006A〉

Stock No. 7550490

W	X	Y	Z
R601	100kΩ ± 5% ¼W CR.	0107104	2 A
R602	100kΩ	0107104	2 B
R603	100kΩ	0107104	1 A
R604	100kΩ	0107104	1 B
R605	47kΩ	0107473	1 A
R606	47kΩ	0107473	1 B
R607	2.2kΩ	0107222	1 A
R608	2.2kΩ	0107222	1 B
R609	220Ω	0107221	1 A
R610	220Ω	0107221	1 B
R611	820Ω	0107821	1 A
R612	820Ω	0107821	1 B
R613	330Ω	0107331	2 A
R614	330Ω	0107331	2 B
R615	22kΩ	0107223	1 A
R616	22kΩ	0107223	1 B
R617	680kΩ	0107684	1 A
R618	680kΩ	0107684	1 B
R619	560Ω	0107561	1 A
R620	560Ω	0107561	1 B

W	X	Y	Z
R621	560Ω ± 5% ¼W CR.	0107561	1 A
R622	560Ω	0107561	1 B
R623	820kΩ	0107824	1 A
R624	820kΩ	0107824	1 B
R625	2.7kΩ	0107272	1 A
R626	2.7kΩ	0107272	1 B
R627	82kΩ	0107823	1 A
R628	82kΩ	0107823	1 B
R629	5.6kΩ	0107562	1 A
R630	5.6kΩ	0107562	1 B
R631	1.5kΩ	0107152	2 A
R632	1.5kΩ	0107152	2 B
R633	100kΩ	0107104	2 A
R634	100kΩ	0107104	2 B
R635	560kΩ	0107564	2 A
R636	560kΩ	0107564	2 B
R637	27kΩ	0107273	2 A
R638	27kΩ	0107273	2 B
R639	33kΩ	0107333	2 A
R640	33kΩ	0107333	2 B



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W	X				Y	Z
C601	1μF		50V	EC.	0519101	1 A
C602	1μF				0519101	1 B
C603	10μF		10V	EC.	0511100	1 A
C604	10μF				0511100	1 B
C605	150pF	±10%	50V	CC.	0660151	1 A
C606	150pF				0660151	1 B
C607	47μF		10V	EC.	0510470	1 A
C608	47μF				0510470	1 B
C609	10pF	±0.5pF	50V	CC.	0660100	1, 2 A
C610	10pF				0660100	1, 2 B
C611	330pF	± 5%	50V	SC.	0620331	1 A
C612	330pF				0620331	1 B
C613	47μF		6.3V	EC.	0510470	1, 2 A
C614	47μF				0510470	1, 2 B
C615	4.7μF		50V	EC.	0515479	2 A
C616	4.7μF		50V	EC.	0515479	2 B
C617	3.3μF		50V	EC.	0519102	2 A
C618	3.3μF		50V	EC.	0519102	2 B
C619	0.0012μF	± 5%	50V	MC.	0600126	2 A
C620	0.0012μF				0600126	2 B
C621	0.08μF				0600806	2 A
C622	0.08μF				0600806	2 B
C623	470pF	± 5%	50V	SC.	0620471	2 A
C624	470pF				0620471	2 B
C625	0.0022μF	± 5%	50V	MC.	0600226	2 A
C626	0.0022μF				0600226	2 B
C629	47pF	±10%	50V	CC.	0660470	1 A
C630	47pF				0660470	1 B
TR601	2SA726R (F, G)				0300410, 1	1 A
TR602					0300410, 1	1 B
TR603	2SC1313R (F, G)				0306070, 1	1 A
TR604					0306070, 1	1 B
TR605	2SA561 (Y, GR)				0300101, 2	1 A
TR606					0300101, 2	2 B
	F-2006 Printed Circuit Board				2550360	

*Please contact the nearest Sansui Authorized Service Station for replacement parts. When ordering them, look up the part lists on pages 23 to 34 and let us know (1) the amplifier's model number, (2) name of the printed circuit board, (3) part No., (4) name of the part, and (5) its stock No. Using non-standard parts for temporary relief often impairs the sound quality and over-all reliability of the amplifier. Please take the trouble to contact your nearest Sansui Authorized Service Station.

*Abbreviations

CR : Carbon Resistor
SR : Solid Resistor
CeR : Cement Resistor
CC : Ceramic Capacitor
EC : Electrolytic Capacitor
MC : Mylar Capacitor
SC : Polystyrene Capacitor
TC : Tantalum Capacitor

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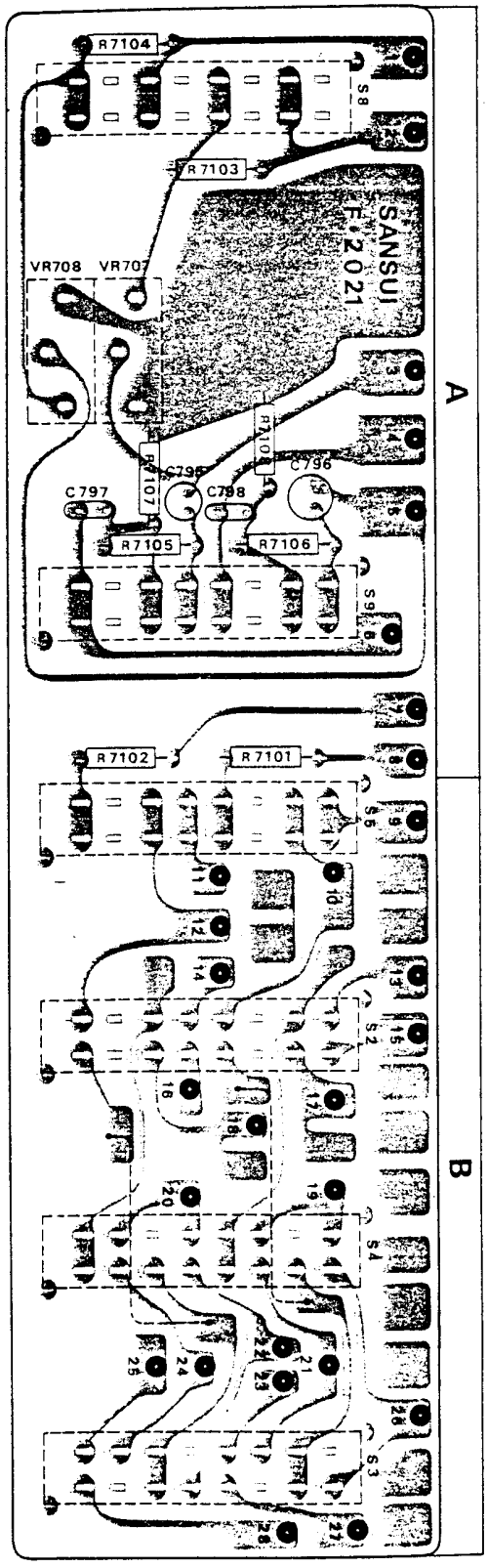
PRINTED CIRCUIT BOARDS AND PARTS LIST

W: Parts No. **X:** Parts Name **Y:** Stock No. **Z:** Position of Prrts

SWITCH BLOCK 〈F-2021〉

Stock No. 7591310

W	X	Y	Z
R7101	12kΩ ± 5% ¼W CR.	0107123	A
R7102	12kΩ	0107123	A
R7103	680kΩ	0107684	A
R7104	680kΩ	0107684	A
R7107	22kΩ	0107223	A
R7108	22kΩ	0107223	A
VR707	250kΩ (M, N) BALANCE	1010870	A
VR708			A
C795	390pF ± 5% 50V SC.	0620391	A
C796		0620391	A
C797	0.02μF ±10% 50V MC.	0601207	A
C798		0601207	A
S2	N.R. Adaptor Switch	1170300	B
S3	Tape-to-Tape Reprint Switch	1170290	B
S4	Tape Monitor Switch	1170290	B
S5	4-CH Adaptor Switch	1170300	B
S8	Muting Switch	1170270	A
S9	Loudness Switch	1170270	A
	F-2021 Printed Circuit Board	2591290	



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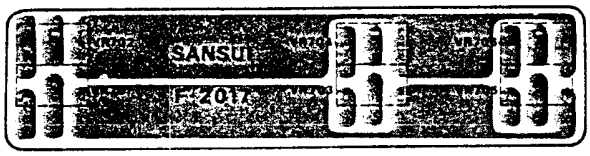
LEVEL ADJUSTOR BLOCK 〈F-2017〉

Stock No. 7591360

W	X	Y
VR701 VR702	200kΩ (B)×2 AUX Level Adj.	1015060
VR703 VR704	250kΩ (B)×2 PLAY BACK 1 Level Adj.	1015060
VR705 VR706	250kΩ (B)×2 PLAY BACK 2 Level Adj.	1015060
	F-2017 Printed Circuit Board	2591340



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031-856-637
098-788-319
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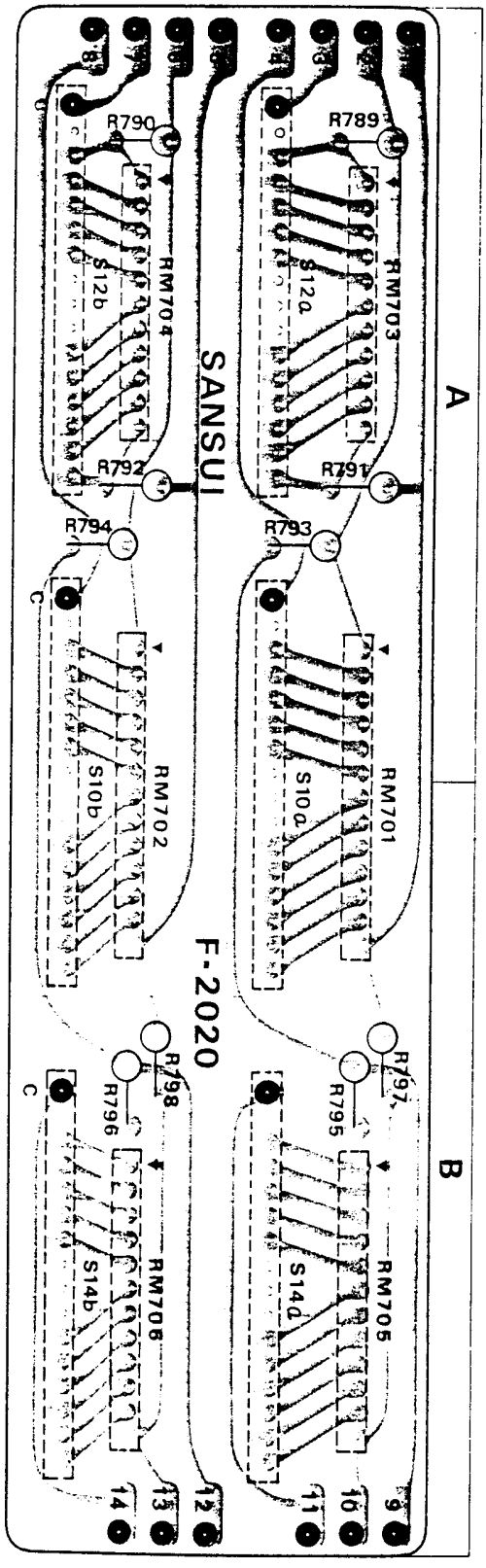
Croatia

TONE SWITCH BLOCK 〈F-2020〉

Stock No. 7591320

W	X	Y	Z
R789	1.2kΩ ± 5% ¼W CR.	0106122	A
R790	1.2kΩ	0106122	A
R791	1.5kΩ	0106152	A
R792	1.5kΩ	0106152	A
R793	10kΩ	0106103	A
R794	10kΩ	0106103	A
R795	2.7kΩ	0106272	B
R796	2.7kΩ	0106272	B
R797	10kΩ	0106103	B
R798	10kΩ	0106103	B
RM701	RM1205 Module Resistor	0800260	A, B
RM702		0800260	A, B
RM703	RM1006 Module Resistor	0800250	A
RM704		0800250	A
RM705	RM1104 Module Resistor	0800240	B
RM706		0800240	B
S10	Midrange Control	1102470	A, B
S12	Treble Control	1102470	A
S14	Bass Control	1102470	B
	F-2020 Printed Circuit Board	2591300	



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PRINTED CIRCUIT BOARDS AND PARTS LIST

W: Parts No. **X:** Parts Name **Y:** Stock No. **Z:** Position of Prrts

TONE CONTROL BLOCK 〈F-2019〉

Stock No. 7560610

W	X	Y	Z
R701	1kΩ	0107102	1 A
R702	1kΩ	0107102	2 A
R703	100kΩ	0107104	1 A
R704	100kΩ	0107104	2 A
R705	47kΩ	0107473	1 A
R706	47kΩ	0107473	2 A
R707	10kΩ	0107103	1 A
R708	10kΩ	0107103	2 A
R709	1kΩ	0107102	1 A
R710	1kΩ	0107102	2 A
R711	8.2kΩ	0107822	1 A
R712	8.2kΩ	0107822	2 A
R713	3.3kΩ	0107332	1 A
R714	3.3kΩ	0107332	2 A
R715	10Ω	0107100	1 A
R716	10Ω	0107100	2 A
R717	47kΩ	0107473	1 A
R718	47kΩ	0107473	2 A
R719	1MΩ	0107105	1 A
R720	1MΩ	0107105	2 A
R721	10kΩ	0107103	1 A
R722	10kΩ	0107103	2 A
R723	8.2kΩ	0107822	1 A
R724	8.2kΩ	0107822	2 A
R725	18kΩ	0107183	1 B
R726	18kΩ	0107183	2 B
R727	2.7kΩ	0107272	1 B
R728	2.7kΩ	0107272	2 B
R729	8.2kΩ	0107822	1 B
R730	8.2kΩ	0107822	2 B
R733	820kΩ	0107824	1 B
R734	820kΩ	0107824	2 B
R735	150kΩ	0107154	1 B
R736	150kΩ	0107154	2 B
R737	12kΩ	0107123	1 B
R738	12kΩ	0107123	2 B
R739	120Ω	0107121	1 B
R740	120Ω	0107121	2 B
R741	3.3kΩ	0107332	1 B
R742	3.3kΩ	0107332	2 B
R743	3.3kΩ	0107332	1 B
R744	3.3kΩ	0107332	2 B
R745	120kΩ	0107124	1 B
R746	120kΩ	0107124	2 B
R747	470kΩ	0107474	1 B
R748	470kΩ	0107474	2 B
R749	1kΩ	0107102	1 B
R750	1kΩ	0107102	2 B
R751	820kΩ	0107564	1 B
R752	820kΩ	0107564	2 B
R753	1MkΩ	0107684	1 B
R754	1MkΩ	0107684	2 B
R755	68kΩ	0107683	1 B
R756	68kΩ	0107683	2 B
R757	82kΩ	0107823	1 C
R758	82kΩ	0107823	2 C

(R701–R730, R733–R758: ± 5% ¼W CR.)

W	X	Y	Z
R759	3.9kΩ	0107392	1 C
R760	3.9kΩ	0107392	2 C
R761	10kΩ	0107033	1 C
R762	10kΩ	0107033	2 C
R763	220Ω	0107221	1 C
R764	220Ω	0107221	2 C
R765	8.2kΩ	0107822	1 C
R766	8.2kΩ	0107822	2 C
R767	120kΩ	0107124	1 C
R768	120kΩ	0107124	2 C
R769	820Ω	0103821	1 C
R770	820Ω	0103821	2 C
R7109	10kΩ	0107103	1 C
R7110	10kΩ	0107103	2 C
R7113	82kΩ	0107823	2 C
R7114	56kΩ	0107564	1 C
C701	0.47μF	0573478	1 A
C702	0.47μF	0573478	2 A
C703	47μF	0512470	1 A
C704	47μF	0512470	2 A
C705	47μF	0510470	1 A
C706	47μF	0510470	2 A
C707	10pF	0660100	1 A
C708	10pF	0660100	2 A
C709	4.7μF	0519106	1 A
C710	4.7μF	0519106	2 A
C717	2.2μF	0519105	1 A, B
C718	2.2μF	0519105	2 A, B
C719	47μF	0510470	2 B
C720	47μF	0510470	2 B
C721	10pF	0660100	1 B
C722	10pF	0660100	2 B
C723	4.7μF	0519106	1 B
C724	4.7μF	0519106	2 B
C725	0.47μF	0573478	1 B
C726	0.47μF	0573478	2 B
C727	22pF	0660220	1 B
C728	22pF	0660220	2 B
C729	47pF	0660470	1 C
C730	47pF	0660470	2 C
C731	4.7μF	0519106	1 C
C732	4.7μF	0519106	2 C
C733	220μF	0514221	1 C
C734	220μF	0514221	2 C
C799	220μF	0513221	1, 2 C
TR701	2SK30 (Y)	0370102	1 A
TR702	2SK30 (Y)	0370102	2 A
TR703	2SA726R (F, G)	0300410, 1	1 A
TR704	2SA726R (F, G)	0300410, 1	2 A
TR705	2SC1313R (F, G)	0306070, 1	1 A
TR706	2SC1313R (F, G)	0306070, 1	2 A
TR707	2SC1313R (F, G)	0306070, 1	1 B
TR708	2SC1313R (F, G)	0306070, 1	2 B

(R759–R768: ± 5% ¼W CR.; R769–R770: ± 5% ½W CR.; R7109–R7114: ± 5% ¼W CR.; C701–C706: 25V TC. / 16V EC. / 6.3V EC.; C707–C708: ±10% 50V CC.; C709–C710: 50V EC.; C717–C718: 50V EC.; C719–C720: 6.3V EC.; C721–C722: 50V CC.; C723–C724: 50V EC.; C725–C726: 25V TC.; C727–C728: ±10% 50V CC.; C729–C730: ±10% 50V CC.; C731–C732: 50V EC.; C733–C734: 35V EC.)

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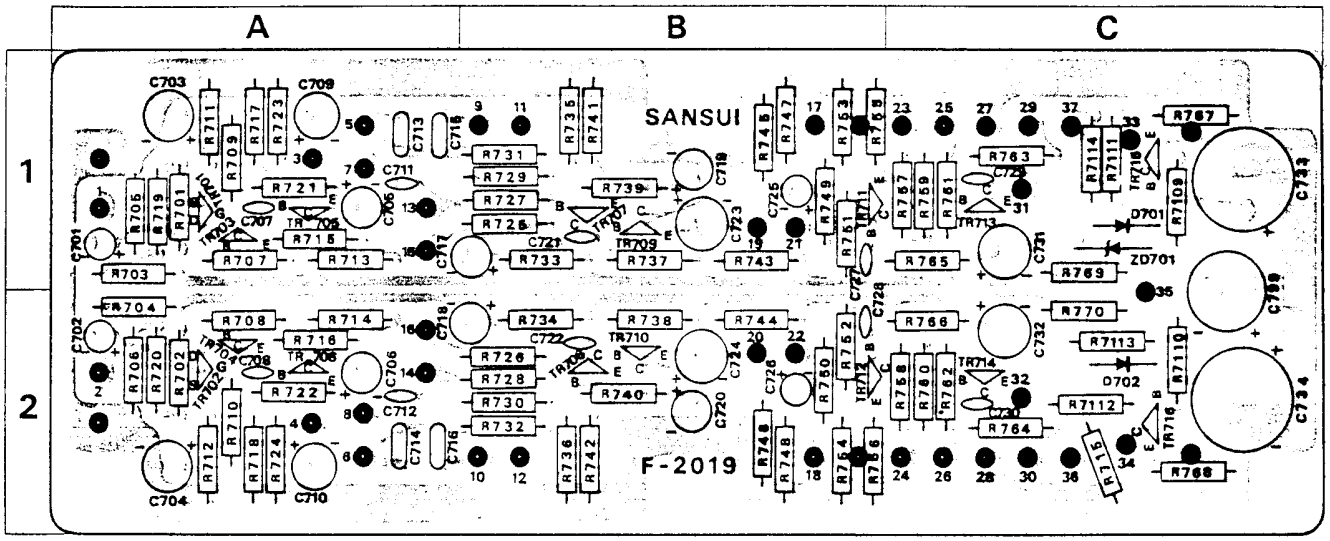
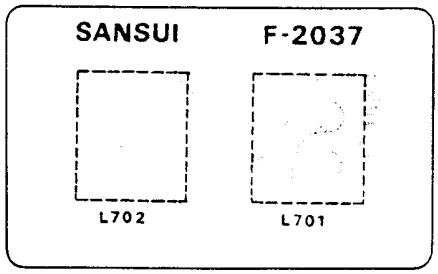
W	X	Y	Z
TR709	2SA726R (E, G)	0300410, 1	1 B
TR710		0300410, 1	2 B
TR711	2SA1313R (F, G)	0306070, 1	2 B
TR712		0306070, 1	2 B
TR713	2SA726R (E, G)	0300410, 1	1 C
TR714		0300410, 1	2 C
TR715	2SC634A	0305891, 2	1 C
TR716		0305891, 2	2 C
D701	IS953	0311050	1 C
ZD701	RD11A (M)	0315260	1 C
	F-2019 Printed Circuit Board	2560560	



CHOKE TRANSFORMER BLOCK
〈F-2037〉

Stock No. 7591330

W	X	Y
L701	0.8H Choke Transformer	4010060
L702		4010060
	F-2037 Printed Circuit Board	2591310



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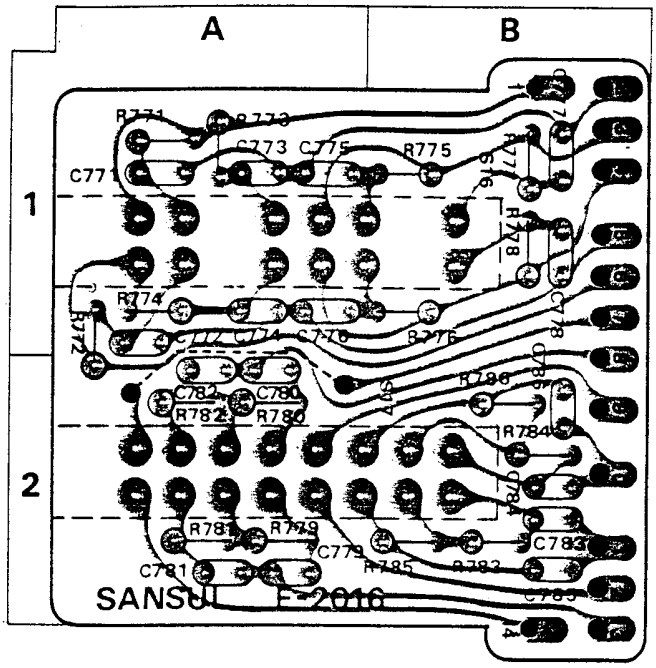
PRINTED CIRCUIT BOARDS AND PARTS LIST

W: Parts No. **X:** Parts Name **Y:** Stock No. **Z:** Position of Parts

FILTER BLOCK ⟨F-2016⟩

Stock No. 7591340

W	X	Y	Z
R771	1MΩ ± 5% ¼W CR.	0106105	1 A
R772	1MΩ	0106105	1, 2 A
R773	1MΩ	0106105	1 A
R774	1MΩ	0106105	1 A
R775	1MΩ	0106105	1 B
R776	1MΩ	0106105	1 B
R777	1MΩ	0106105	1 B
R778	1MΩ	0106105	1 B
R779	1MΩ	0106105	2 A
R780	1MΩ	0106105	2 A
R781	1MΩ	0106105	2 A
R782	1MΩ	0106105	2 A
R783	1MΩ	0106105	2 B
R784	1MΩ	0106105	2 B
R785	1MΩ	0106105	2 B
R786	1MΩ	0106105	2 B
C771	0.043μF ± 5% 50V MC.	0600437	1 A
C772	0.043μF	0600437	2 A
C773	0.02μF	0600207	1 A
C774	0.02μF	0600207	1 A
C775	0.015μF	0600157	1 A
C776	0.015μF	0600157	1 A
C777	0.008μF	0600806	1 B
C778	0.008μF	0600806	1 B
C779	0.0047μF	0600476	2 A
C780	0.0047μF	0600476	2 A
C781	0.0022μF	0600226	2 A
C782	0.0022μF	0600226	2 A
C783	0.002μF	0600206	2 B
C784	0.002μF	0600206	2 B
C785	0.001μF	0600106	2 B
C786	0.001μF	0600106	1, 2 B
S16	Low Filter Switch	1170280	1 B
S17	High Filter Switch	1170280	2 B
	F-2016 Printed Circuit Board	2591320	



DRIVER BLOCK ⟨F-2029⟩

Stock No. 7570690

W	X	Y	Z
R801	82kΩ ± 5% ¼W CR.	0107823	1 B
R803	100kΩ	0107104	1 B
R805	10kΩ	0107103	1 B
R807	8.2kΩ	0107822	1 A, B
R809	47kΩ	0107473	1 B
R811	4.7kΩ	0107472	1 B
R813	100Ω	0107101	1 B
R815	100Ω	0107101	1 B
R817	6.8kΩ	0107682	1 B
R819	6.8kΩ	0107682	1 B
R821	220Ω	0107221	1 B
R823	1kΩ	0107102	1 B
R825	5.6kΩ ± 5% ½W CR.	0103562	1 A
R827	33kΩ ± 5% ¼W CR.	0107333	1 B
R829	82kΩ	0107820	1 A
R831	33Ω	0107330	2 B
R833	33Ω	0107330	1 B
R835	470Ω ± 5% ½W CR.	0103471	1, 2 B
R837	1kΩ ± 5% ¼W CR.	0107102	1 A
R839	270Ω	0107271	1 A
R841	56Ω	0107560	2 A
R843	47kΩ	0107473	1 A
R845	330Ω	0107331	1, 2 A
R847	330Ω	0107331	1, 2 B

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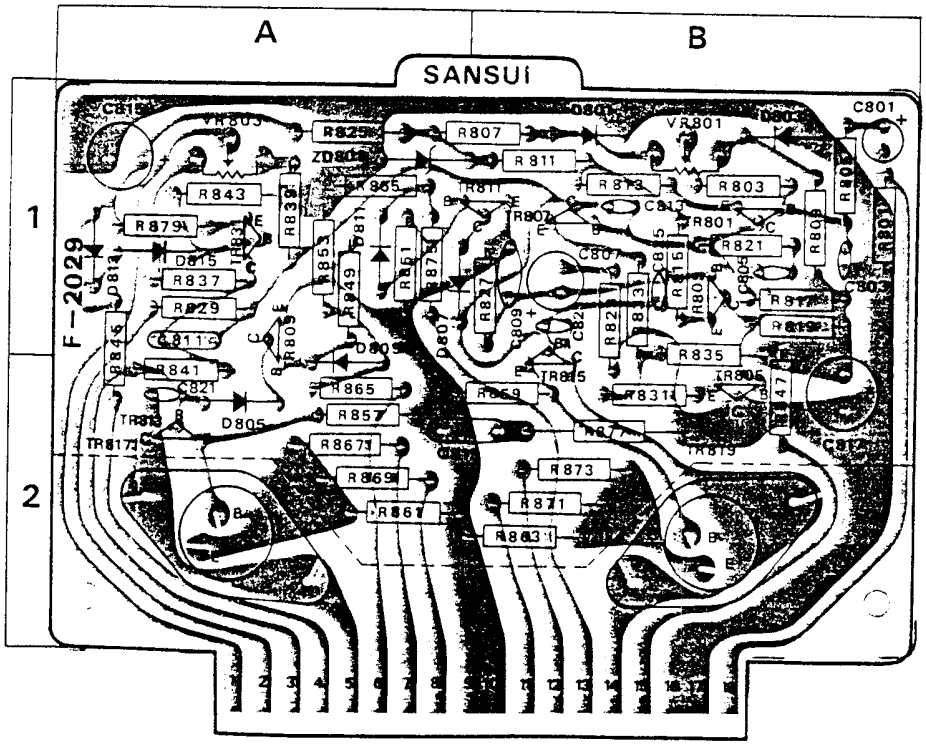
W	X	Y	Z
R849	56Ω ± 5% ¼W CR.	0107560	1 A
R851	56Ω	0107560	1 A
R853	33kΩ	0107333	1 A
R855	33kΩ	0107333	1 A
R857	560Ω	0107561	2 A
R859	560Ω	0107561	2 A, B
R861	220Ω ± 5% ½W CR.	0103221	2 A
R863	220Ω	0103221	2 B
R865	4.7Ω ± 5% ¼W CR.	0107479	2 A
R867	10Ω	0103100	2 A
R869	10Ω ± 5% ½W CR.	0103100	2 A
R871	10Ω	0103100	2 B
R873	10Ω	0103100	2 B
R875	4.7Ω ± 5% ¼W CR.	0107479	1 A
R877	10Ω ± 5% 2W CeR.	0132100	2 B
R879	120Ω ± 5% ¼W CR.	0107121	1 A
VR801	5kΩ (B) AC Balance Adj.	0131092	1 B
VR802	1kΩ (B) DC Bias Adj.	0131052	1 B
C801	2.2μF 50V EC.	0519105	1 B
C803	33pF ±10% 50V CC.	0660330	1 B
C805	470pF	0660471	1 B
C807	220μF ±30% 6.3V EC.	0510221	1 B
C809	5pF ±0.5pF 50V CC.	0660509	1 B
C811	0.1μF ±10% 50V MC.	0601108	1 A
C813	22pF ±10% 50V CC.	0660220	1 B

W	X	Y	Z
C815	47μF 80V EC.	0519470	1 A
C817	47μF	0519470	2 B
C819	0.047μF ±10% 50V MC.	0601477	2 A, B
C821	33pF ±10% 50V CC.	0660330	2 A
C823	33pF	0660430	1 B
TR801	2SA726W (F, G)	0300470, 1	1 B
TR803		0300470, 1	1 B
TR805	2SC983 (O, Y)	0306020, 1	2 B
TR807		0306020, 1	1 B*
TR809	2SC735 (O, Y)	0305640, 1	1, 2 A
TR811	2SA562 (O, Y)	0300220, 1	1 A, B
TR813	2SC1124 (2, 3)	0305901, 2	2 A
TR815	2SA706GR (2, 3)	0300480, 1	1, 2 B
TR817	2SC783 (R, O)	0306020, 1	2 A
TR819	2SA483 (R, O)	0300500, 1	2 B
TR831	2SA706GR (2, 3)	0300480, 1	1 A
D801	IS953	0311050	1 B
D803		0311050	1 A
D805		0311050	1 A
D807		0311050	1 A
D809		0311050	1 A
D811		0311050	1 A
ZD801	RD9A (M)	0315120	1 A
	F-2029 Printed Circuit Board	2570470	



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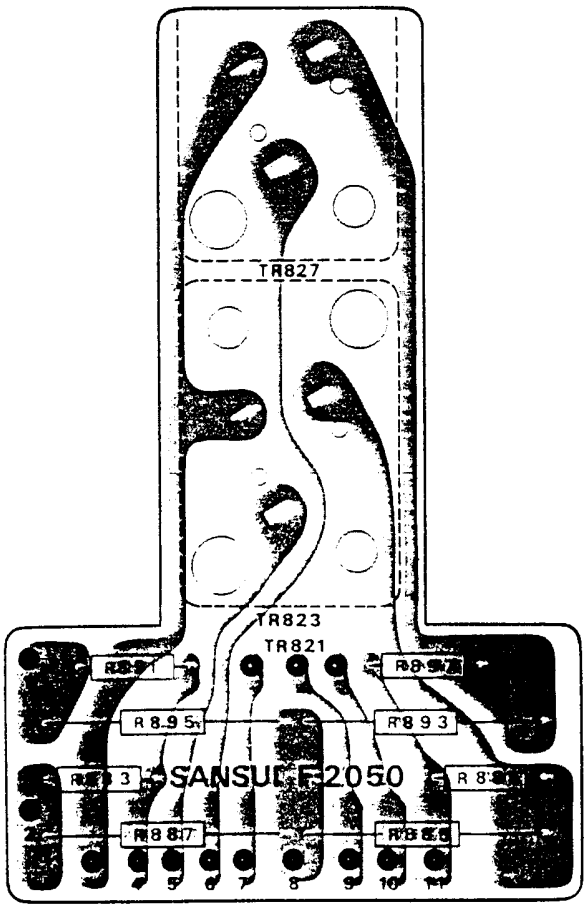
PRINTED CIRCUIT BOARDS AND PARTS LIST

W: Parts No. **X:** Parts Name **Y:** Stock No. **Z:** Position of Parts

POWER TRANSISTOR SOCKET BLOCK ⟨F-2050⟩

Stock No. 7591350

W	X	Y
R881	150Ω ± 5% ¼W CR.	0107151
R883	150Ω ± 5% ¼W CR.	0107151
R885	0.47Ω ±10% 5W CeR.	0135478
R887	0.47Ω ±10% 5W CeR.	0135478
R891	150Ω ± 5% ¼W CR.	0107151
R893	0.47Ω ±10% 5W CeR.	0135478
R895	0.47Ω ±10% 5W CeR.	0135478
R897	150Ω ± 5% ¼W CR.	0107151
TR821	2SC984 (C)	0305872
	Power Transistor Socket (Big)	2030020
	F-2050 Printed Circuit Board	2591330



POWER SUPPLY & PROTECTOR BLOCK ⟨F-2030⟩

Stock No. 7500740

W	X	Y	Z
R051	10kΩ ± 5% ¼W CR.	0107103	2 B
R052	68Ω ± 5% ¼W CR.	0107680	1, 2 B
R053	10kΩ ± 5% ¼W CR.	0107103	1 B
R054	68Ω ± 5% ¼W CR.	0107680	1 B
R055	3.3kΩ ± 5% 2W CR.	0105332	1 B
R056	2.2kΩ ± 5% ¼W CR.	0107222	1 B
R057	3.3kΩ ± 5% ¼W CR.	0107332	2 B
R058	68kΩ ± 5% ¼W CR.	0107683	2 B
R059	5.6kΩ ± 5% ¼W CR.	0107562	2 B
R060	4.7kΩ ± 5% ¼W CR.	0107472	2 B
R061	68Ω ± 5% ¼W CR.	0107680	2 B
R062	470Ω ± 5% ½W CR.	0103471	2 B
R901	4.7kΩ ± 5% ¼W CR.	0107472	2 A
R902	4.7kΩ ± 5% ¼W CR.	0107472	2 A
R903	47kΩ ± 5% ¼W CR.	0107473	2 A
R904	47kΩ ± 5% ¼W CR.	0107473	2 A
R905	4.7Ω ± 5% 1W CR.	0104479	2 A
R906	4.7Ω ± 5% 1W CR.	0104479	2 A
R909	390kΩ ± 5% ¼W CR.	0107394	2 A
R910	220kΩ ± 5% ¼W CR.	0107224	2 A
R911	68kΩ ± 5% ¼W CR.	0107683	2 A
R912	22Ω ± 5% ¼W CR.	0107220	2 A
R913	10Ω ± 5% ¼W CR.	0107100	2 A
R914	10Ω ± 5% ¼W CR.	0107100	1 A
C051	0.01μF +80 −20% 500V CC.	0659011	1 B
C052	100μF 75V EC.	0519101	1, 2 B
C053	0.01μF +80 −20% 500V CC.	0659011	1 B
C054	220μF 75V EC.	0519302	1, 2 B
C055	100μF 75V EC.	0519101	1 B
C056	0.01μF +80 −20% 500V CC.	0659011	1 B
C057	470μF 16V EC.	0512471	1 B
C058	220μF 75V EC.	0519302	2 B
C059	0.001μF +80 −20% 50V CC.	0660106	1, 2 B
C060	220μF 50V EC.	0515221	2 B
C061	0.01μF +80 −20% 50V CC.	0660107	2 B
C062	220μF 50V EC.	0515221	2 B
C063	0.01μF +80 −20% 50V CC.	0660107	1 B
C901	47μF 10V EC.	0531470	2 A
C902	47μF 10V EC.	0531470	2 A
C905	0.33μF ±10% 50V MC.	0601338	2 A
C906	1000μF 6.3V EC.	0510102	1 A
C907	100μF 50V EC.	0515101	1 A
C908	1μF 50V EC.	0535109	2 A
TR051	2SC1124 (2, 3)	0305901, 2	2 B
TR052	2SA706Y (2, 3)	0300391, 2	1 B
TR053	2SC680BL (B, C)	0305621, 2	1, 2 A B
TR054	2SC734 (O, Y)	0305360, 1	2 B
TR901	2SC634A (6, 7)	0305891, 2	2 A
TR902	2SC634A (6, 7)	0305891, 2	1, 2 A
D051	F14C	0311200	1 B
D052	F14C	0311200	1 B
D053	F14C	0311200	1 B
D054	F14C	0311200	1 B

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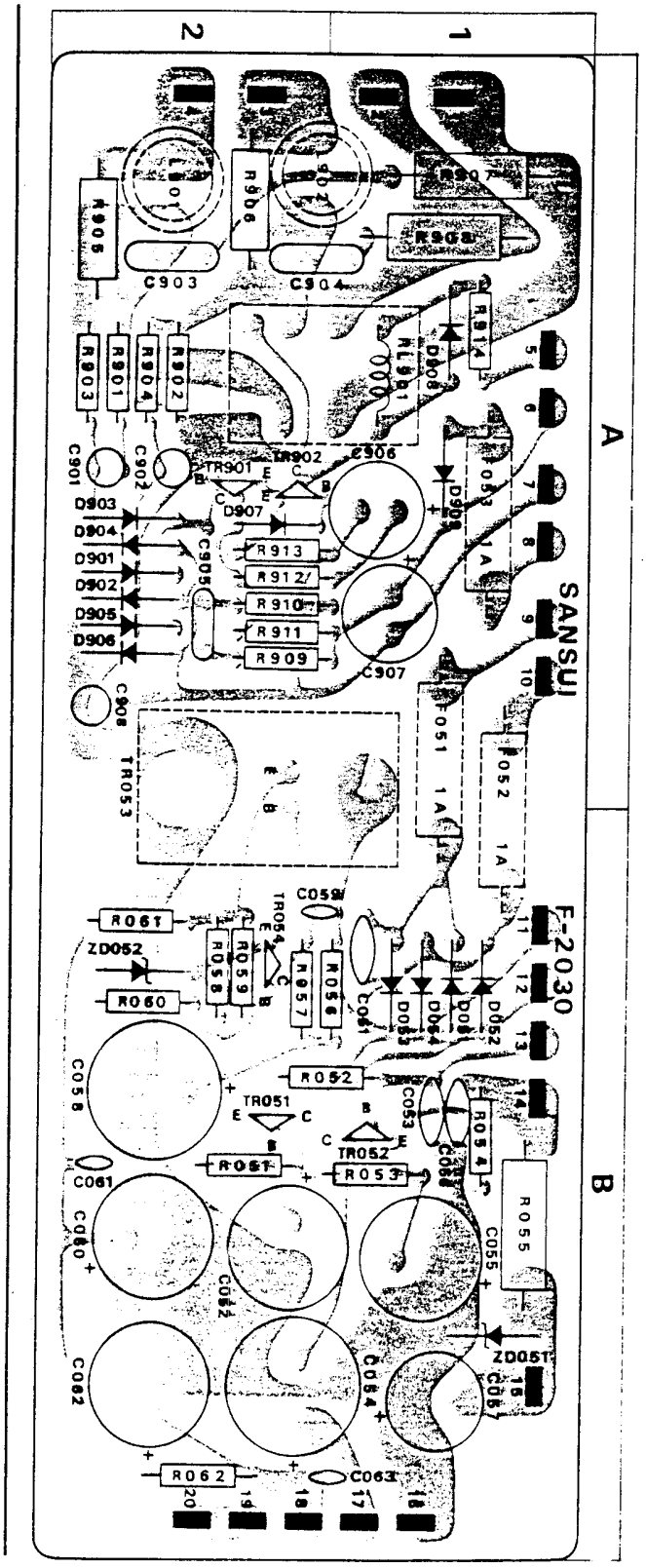
W	X	Y	Z
D901	1N34A	0310401	2 A
D902		0310401	2 A
D903		0310401	2 A
D904		0310401	2 A
D905		0310401	2 A
D906		0310401	2 A
D907	1S953	0311050	2 A
D908	F14A	0310940	1 A
D909		0310940	1 A
ZD051	RD9A (M)	0315220	1 B
ZD052	1N721A	0315150	2 B
RL901	DC24V MY-2 Relay	1150250	1, 2 A
L901	1.5μH	4210290	1 A
L902		4210290	1, 2 A
F051	250V 1A Fuse W/ Leads	0431820	1 A, B
F052		0431820	1 A, B
F053		0431820	1 A
	F-2030 Printed Circuit Board	2500620	



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OTHER PARTS AND THEIR POSITION ON CHASSIS

W: Parts No. **X:** Parts Name **Y:** Stock No. **Z:** Position of Prrts

OTHER PARTS

W	X	Y
R001	8.2kΩ ± 5% 2W CR.	0105822
R002	8.2kΩ	0105822
R003	8.2kΩ	0105822
R004	8.2kΩ	0105822
R651	56kΩ ± 5% ¼W CR.	0107563
R652	56kΩ	0107563
R653	47kΩ	0107473
R654	47kΩ	0107473
R655	100kΩ	0107104
R656	100kΩ	0107104
R657	100kΩ	0107104
R658	100kΩ	0107104
R659	100kΩ	0107104
R660	100kΩ	0107104
R661	220kΩ	0107224
R662	220kΩ	0107224
R731	3.3kΩ	0107332
R732	3.3kΩ	0107332
R875	470Ω ±10% 2W CeR.	0152471
R876	470Ω	0152471
R877	470Ω	0152471
R878	470Ω	0152471
R7107	1MΩ ± 5% ¼W CR.	0107105
R7108	1MΩ	0107105
R7109	1MΩ	0107105
R7110	1MΩ	0107105
VR706	250kΩ(B) × 2 Volume Control	1010580
VR710		1010580
C001	0.047μF ±20% 250V MC.	0605477
C002	0.01μF +80% −20% 500V CC.	0659011
C003	0.01μF	0659011
C004	0.01μF	0659011
C005	0.01μF	0659011
C006	4700μF 63V EC.	0559507
C007	4700μF	0559507
C008	4700μF	0559507
C009	4700μF	0559507
C010	0.01μF +80% −20% 500V CC.	0659011
C011	0.01μF	0659011
C012	0.01μF	0659011
C013	0.01μF	0659011
C014	1000μF 80V EC.	0559839
C015	0.047μF +80% −20% 50V CC.	0657473
C016	0.047μF × 4 50V CC.	0800121
C741	0.022μF ±10% 50V MC.	0601227
C742	0.022μF	0601227
C743	0.01μF	0601107
C744	0.01μF	0601107
C745	0.004μF	0601406
C746	0.004μF	0601406
C747	0.003μF	0601306
C748	0.003μF	0601306
C749	0.0022μF	0601226
C750	0.0022μF	0601226
C751	0.0033μF	0601336
C752	0.0033μF	0601336

W	X	Y
C753	0.1μF ±10% 50V MC.	0601108
C754	0.1μF	0601108
C755	0.1μF	0601108
C756	0.1μF	0601108
C757	0.06μF	0601607
C758	0.06μF	0601607
C759	0.1μF	0601108
C760	0.1μF	0601108
C761	0.1μF	0601108
C762	0.1μF	0601108
C763	0.06μF	0601607
C764	0.06μF	0601607
TR823	2SC1079 (R, Y)	0305780, 1
TR825	2SA679 (R, Y)	0300490, 1
TR827	2SC1079 (R, Y)	0305780, 1
TR829	2SC679 (R, Y)	0300490, 1
	Power Transistor Socket (Big)	2030020
D001	5B4	0311170
D002		0311170
S1	Selector Control Y-4-8-5	1104270, 1
S6	PHONO-2 Pickup Load Switch	1110110
S7	Mode Switch	1101191
S11	Midrange Tone Selector F-1-2-4	1101490, 1
S13	Treble Tone Selector F-1-2-4	1101490, 1
S15	Bass Tone Selector F-2-2-4	1102450, 1
S18	Power/Speakers Switch	1102460
J601	MIC Jack	2430160
J602		2430160
J801	Headphone Jack w/o Switch	2430220
J802	Headphone Jack w/ Switch	2430230
PU601	DIN Socket	2430040
T001	Power Transformer	4001250
CO001	AC Outlet (UNSWITCHED)	2450040
CO002	AC Outlet	2450040
CO003	AC Outlet (SWITCHED)	2450040
CO004	AC Outlet	2450040
F001	6A (100~127V) 4A (220~250V) Power Fuse	0431290
	Power Fuse Holder	2300060
F002	7A Quick-Acting Fuse	0433302
F003		0433302
F004		0433302
F005		0433302
	Quick-Acting Fuse Holder (× 4)	2300020
F006	250V 1A Fuse W/ Leads	0431830
PL001	Power Indicator (6.3V 0.25A)	0400090
	Power Indicator Socket	2320080
	14P Multi-Connector	2420040
	18P Multi-Connector	2020020
	Lug Board	2110010
	Power Cord	3800070
PU001	Voltage Selector	
	Main Plug	2410180
	Sub Plug	2410190
	Socket	2410170

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· Design a
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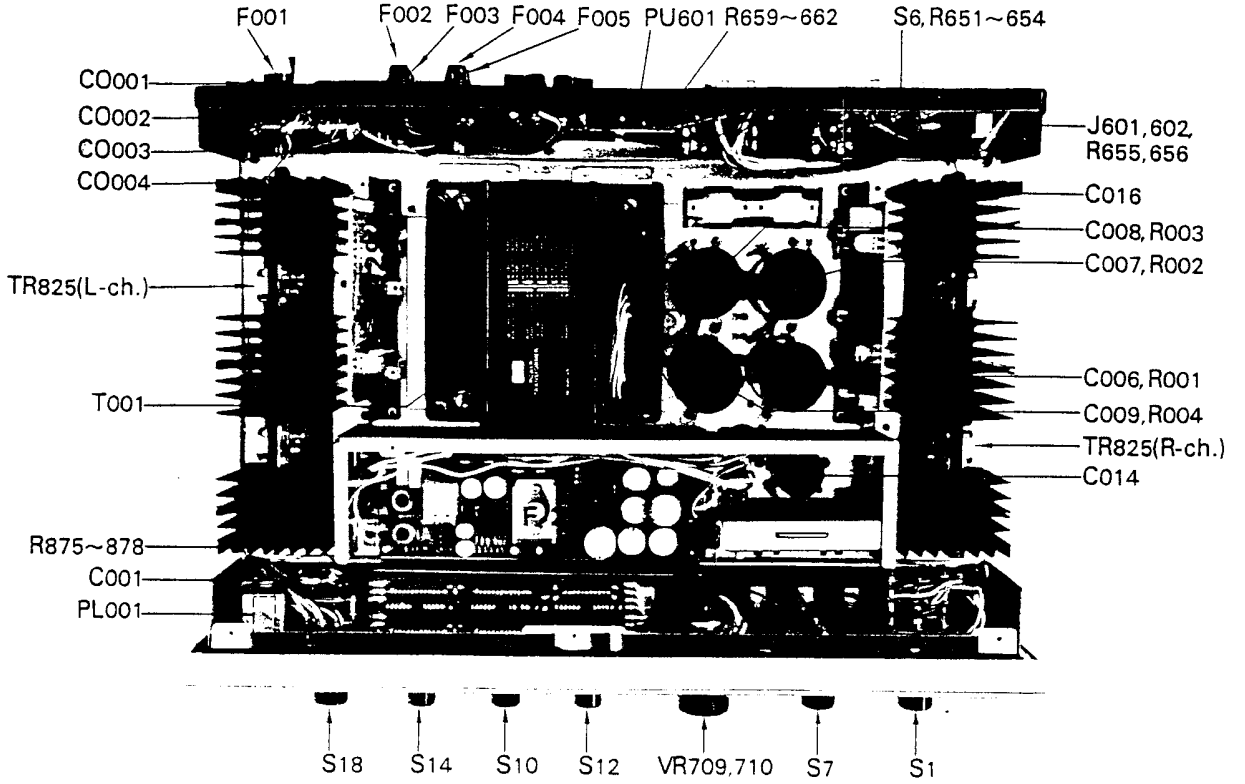

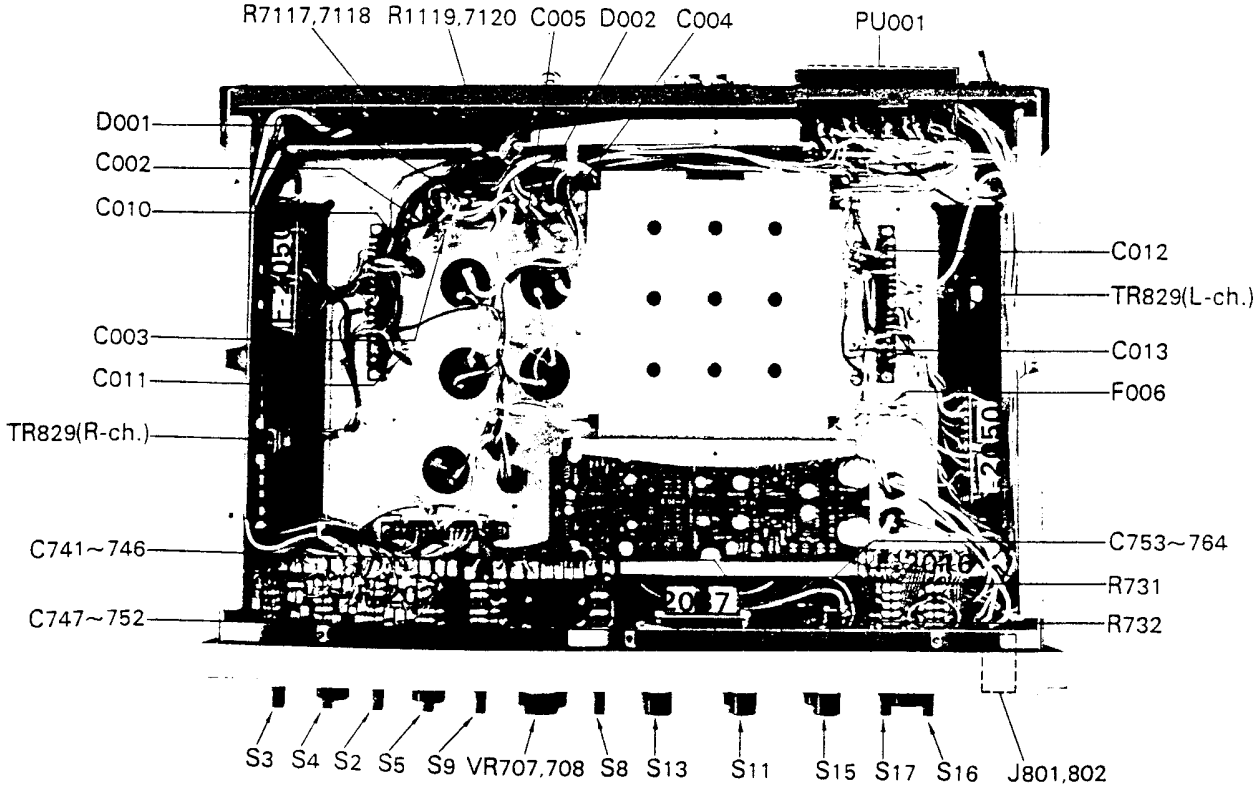

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